

COUNTWAY LIBRARY



HC 4DB1 F



BOSTON
MEDICAL LIBRARY
& THE FENWAY

WASHINGTON MEDICAL ANNALS

(BIMONTHLY)

JOURNAL OF THE MEDICAL SOCIETY OF THE
DISTRICT OF COLUMBIA

Vol. XI, 1912.



BERESFORD, PRINTER, 605 F STREET, N. W.
CITY OF WASHINGTON.



INDEX.

	PAGE.
Abbe, Truman.....	67, 121, 123, 250
Adams, S. S.....	32, 97, 102, 166, 239
Alimentary canal, obstructions of.....	227
Amendments to by-laws.....	61, 123, 124, 178
constitution.....	62, 123, 124, 178
American Medical Association.....	61, 64, 70, 175, 177, 182
Legislative Council of.....	124
tuberculosis sanitarium of.....	126
Anderson, C. L. G.....	271
Annual conference on legislation.....	270
Argyrol, Barnes & Co.....	65, 67
Army Medical Museum.....	19, 34, 104, 109, 177, 208, 209
Association of American Medical Colleges, delegate to.....	67
Baker, Frank.....	153
Balloch, E. A.....	249, 262
Barnes, N. P.....	122
Barton, W. M.....	65, 196, 250
Beer, sale of at army canteens.....	61, 62
Bennett, A. B.....	264
Boy scouts.....	176, 177
Bracken, H. M.....	64
Brooks, J. L.....	263
Bullard, E. L.....	178
Burns.....	106
Bush, D. P.....	178
Butler, W. K.....	96
By-laws.....	61, 67, 70, 77, 123, 124, 178
Carr, W. P.....	10, 13, 31, 107, 108, 119, 166, 171, 198, 213, 227, 240
Cases reported :	
Brain, sarcoma of.....	105
tumor of.....	11, 13, 213
Constipation.....	262
Hirschsprung's disease.....	170
Hydrophobia in man, recovery.....	168
Iodine dermatitis.....	265
Labor, unusual complications of.....	209
Locomotor ataxia.....	67
Pellagra.....	241
Penis, cancer of.....	67
Stomach, carcinoma of.....	251
perforating ulcer of.....	126
volvulus of.....	209
Syringomyelia.....	22
Tabes with toxic complications.....	120
Xeroderma pigmentosum.....	265
Chappell, J. W.....	33, 121, 162, 167, 206
Charities, Board of.....	124, 125
Cholera, epidemic.....	104
Civilization, constipation, reversion.....	I

Cleveland Medical Library	213
Columbia Hospital	123, 176
Conklin, R. W.....	124
Constitution.....	62, 123, 124, 178
Cook, G. Wythe	162, 178
Cox, O. C.....	124
Craig, C. F.....	101
Committees :	
Beer at army posts.....	61, 62
Censors.....	61, 62, 124, 178
Executive	62, 65, 66, 67, 68, 70, 71, 176, 177, 209, 262, 263, 264, 265
Memorials.....	61, 175, 208, 209
Milk legislation.....	126, 176
Program	61, 124
Publication	59, 61, 68
Public health education.....	64, 65, 66, 67, 69, 75, 76, 122, 123, 124, 126, 129, 130, 176, 177, 179, 208, 264, 268
Dabney, Virginius	244
Davis, F. P.....	263
Deaths :	
Bromwell, J. R.....	173, 183, 209
Deale, H. B.....	183, 260, 262, 264
Fry, Samuel.....	177
Hansmann, Theodor	213
Kurtz, John.....	213, 262
Medford, H. S.....	61, 62
Musser, J. H.....	173, 175, 176, 208
Neate, J. W.....	183
Rhett, H. J.....	260, 263
Street, D. B.....	259, 262
Strickler, M. B.....	183, 262
Tryon, J. R.....	207, 208
Delegate to legislative council, A. M. A.....	124, 126
American Medical Association.....	126
Dietetics, a symposium.....	23, 26, 29
Dues, when payable	67
Dufour, C. R.....	197, 198, 258
Dulaney, J. L.....	263
Dunlop, John.....	123
Dunmire, R. F.....	124
Editorial.....	71, 127, 180, 210, 265
Evans, S. G.....	102, 178
Examination for registration of physicians in the District of Columbia..	183
Fecal stasis	265
Flies	179, 208
Fowler, H. A.....	121
Frankland, W. A.....	172, 240
Garfield Hospital.....	74
Glascok, Alfred.....	124
Goldberger, J.....	243
Gout, diet in	23
Griffith, W. A	178
Groover, T. A.....	227, 236, 241
Gymnasium for women.....	263

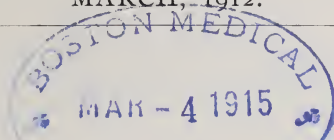
Hagner, Frank.....	67, 201
Hall, W. S.....	264
Harnsberger, Stephen	241, 243
Hazen, H. H.....	199, 202, 208, 209, 246, 250
Hemler, W. F.....	179, 208
Hickling, D. P.....	202, 206
Hirschsprung's disease.....	170
History of Medical Society.....	71, 127, 180, 210, 265
Holmes, Dr.....	125
Hooe, A. B.....	9, 171, 239
Hospital charities.....	66
Hrdlicka, Ales.....	119
Hume, C. A.....	125
Hynson, L. M.....	262, 263
Infancy, diet in.....	26
Ingersoll, R. S	263
Jacobi, A.....	62, 67
Jack, W. A.....	106, 108
Karpeles, S. R.....	265
Kerr, H. H.....	170, 172, 209, 227, 234
King, A. F. A.....	1, 10, 96, 225, 262
King, E. F.....	263
Kober, G. M.....	118, 166
Lafora, S. R.....	99, 103
LaGarde, L. A.....	118
Lamb, D. S.....	19, 34, 104, 109, 120, 177, 208, 209, 251, 263
Lane's kink, cecum mobile and Jackson's membrane.....	231
Lectures.....	65
Leech, Frank.....	26, 34
Lemon, H. T. A.....	108, 162, 198
Leprosy	19
Lewis, H. S.....	178
License to practice medicine.....	176
Lindsay, J. W.....	124
Liver abscess, treatment of.....	71
Lochboehler, G. J.....	226
McGuire, J. C.....	154, 163
McKimmie, O. A. M..	95, 226, 258
Macatee, H. C.....	10, 253
Mackall, Louis.....	121
Magruder, E. P.....	108, 209, 227, 241, 263
Main, R. B.....	62
Malaria, commission for study and prevention of.....	270
Malformations and monstrosities, in Army Medical Museum.....	34
Mallory, W. J.....	8, 32
Martin, T. C.....	123
Masterson, W. L.....	125, 126, 161, 177, 178, 245
Meckel's diverticulum.....	177
Medford, H. D	56
Medical Societies :	
Clinical.....	72, 127, 180, 210, 267
Clinico-pathological.....	73, 128, 181, 211, 267
Galen.....	73, 128, 181, 211, 266

Medical Societies, continued :

Georgetown Clinical.....	74, 128, 181, 211, 267
Hippocrates.....	72, 127, 180, 210, 267
Medical and Chirurgical, Maryland.....	177
Medical and Surgical.....	74, 266
Medical History Club.....	72, 127, 180, 210, 267
Montgomery County Medical.....	74
Nervous and Mental Diseases.....	62
New Hampshire.....	176
Ophthalmological and Otological.....	72, 127, 180, 210, 267
Therapeutic.....	128, 181, 211, 267
Washington Obstetrical and Gynecological.....	123
Women's.....	73, 128, 181, 211, 266
Medicine in lay literature.....	135
Medicine in the navy of today.....	122
Megacolon.....	234
Members, candidates.....	60
elected.....	62, 123, 178
lectures by.....	271
residing outside the District of Columbia.....	59, 264
roster of.....	208
Mental deterioration, study of.....	202
Mercury, acid nitrate of, in dermatological surgery.....	246
Miller, G. B.....	209
Mitchell, J. F.....	238
Moore, S. E.....	264
Moran, J. F.....	189, 198
Morgan, E. L.....	118, 162, 169
Morgan, J. D.....	163, 167
Morgan, W. G.....	33
Morris, of Pittsburgh.....	125
Moulden, W. R.....	265
Muncaster, S. B.....	162, 197, 258
National Department of Health.....	214, 268
National Medical Association.....	268
Nervous disorders, diet in.....	26
Nichols, H. J.....	201
Obstruction caused by neoplasms of gastro-intestinal tract.....	263
Osteopathy.....	209
Owen bill.....	268
Oxygen therapy.....	263
Parker, H. P.....	259
Pellagra.....	209, 241
Pernicious malaria and the nervous system.....	99
Personal notes.....	81, 132, 187, 216, 276
Physicians in District of Columbia and the States.....	184
Postgraduate study course.....	270
Potter, J. A.....	178
Poulton, W. E.....	61
Prehistoric peoples, specimens from.....	109
Proceedings of Medical Society of District of Columbia, 59, 122, 175, 208, 262	
Professor, relation of, to hospitals, etc.....	163
Publications by Washington physicians.....	79, 130, 185, 214, 272
Public health education.....	129
Public Health week, Maryland.....	65, 69, 122

Public Library, Washington.....	213
Public meetings	61, 64, 69
Pulmotor apparatus.....	125
Pyles, R. A.....	263
Pylorus, obstruction of.....	227
Ramsburgh, J. H.....	32
Randolph, B. M	105, 107, 135, 154, 166
Ready, M. J.....	62
Red Cross, International Conference	208
Reede, E. H.....	217, 225, 227
Registration of physicians in District of Columbia.....	183
Reichelderfer, L. H.....	65
Resolution regarding voting by mail	70
Retail Druggists Association.....	176
Reviews of books.....	184, 271
Richardson, C. W.....	29, 85, 98
Rinne, Webber, Schwaback tests.....	264
Rhoads, T. L.....	71
Roy, P. S.	18, 23, 33, 96, 169, 198, 241, 243
Ruble, W. A.....	71, 176
Rules of order.....	67, 123
Salvarsan, oily injections of	199
Schoonover, R. A.....	125
Section of ophthalmology, &c.....	59, 125
Sex hygiene	264
Sexual apparatus, connection of with ear, nose and throat.....	244
Shands, A. R.	97, 119
Simpson, C. A.	21, 161, 202, 208, 209, 250, 265
Skin, contagiousness of diseases of.....	154
Skin, diseases of, and cancer	208
Skinner, J. O	9
Skull, fractures of.....	209
Smith, T. C.....	31, 263
Snyder, A. A.....	108
Sophol, value of in prevention of ophthalmia neonatorum.....	189
Spear, Raymond	21, 71
Stephenson, E. T.....	124
Stokes, C. F.....	122
Stomach, carcinoma of.....	251
position of	123
Stone, I. S.....	107, 162, 197
Street car steps.....	70, 176
Syphilis of skull.....	208
Syphilitic stenosis of trachea.....	217
Telephone service.....	66
Tewksbury, W. D.....	124, 169
Thomas, J. D.....	67, 124, 167, 209, 210, 226
Tibbetts, A. P.....	62
Titus, F. W	62
Tompkins, E. L.....	264
Tonsillectomy with consideration of its complications.....	85
Treasurer, reports, etc.....	57, 67, 123, 124, 176, 178, 208, 209, 262
Tuberculosis.....	270
Tucker, W. P	123
Typhoid fever vaccines.....	269

Van Swearingen, Walter	178
Vascular system, relation of to certain ocular diseases.....	253
Vaughan, G. T.....	126, 168, 169, 172, 227, 231, 240
Walker, R. R.....	95
WASHINGTON MEDICAL ANNALS.....	265, 270
Wellington, J. R.....	177
Wilkinson, Oscar.....	II, 95, 258
Williams, T. A.....	9, 15, 18, 20, 22, 26, 33, 67, 103, 108, 119, 120, 122, 153, 166, 169, 197, 205, 243
Willson, Prentiss.....	32, 33
Wilmer, W. H.....	253, 259
World's Permanent Exposition at Washington.....	262
Woman's clinic.....	65, 78, 129
Woodward, W. C.....	197
X-ray diagnosis of abnormalities of bowel.....	236



WASHINGTON MEDICAL ANNALS

CIVILIZATION—CONSTIPATION—REVERSION.*

By A. F. A. KING, A. M., M. D., LL. D.,

Washington, D. C.

While the title of this paper means that constipation is produced by the habits and environments of civilization and can be relieved by functional reversion to ancestral conditions, it is also designed to call attention to the practical value of this reversion in other abnormal conditions besides constipation.

It may seem puerile to assert that diseases produced by unnatural habits can be prevented and cured by a return to habits that are natural. We all know this; it is axiomatic. At the same time it may be profitable to examine and find out, if we can, in what special *particulars* an acquired habit acts detrimentally and in what special way the trouble can be corrected.

Again, if one chose to take a prejudiced and extreme view of this reversion question, it might be alleged to imply that civilized man must again become a barbarian; that he should abolish clothes, shoes and umbrellas; do away with the culinary art; eat raw food, or again become a cannibal, etc. It would surely be a most unkindly spirit of criticism that would resort to so unjust a conception of the matter.

There are many instances in which we can easily restore ancestral conditions without in any way interfering with the comfort of civilized life.

For example: We have lately learned the value of the open-air treatment of pneumonia and pulmonary tuberculosis, but this does not mean that we should abolish houses or destroy our homes. What it really *does* mean is, that *air* is the special ingredient of the environment with which the lung is particularly concerned, and that while a healthy lung may manage to get along, for a time at least, with almost any kind of air, the diseased lung must be favored in this detail, and must be allowed to revert to the cold pure air of ancestral times, in place of the contaminated and overheated air in the apartments of civilized persons.

* Read before the Medical Society, January 31, 1912.

Thus, if these two diseases had been studied with regard to the ancestral reversion theory, their treatment by the open-air method might have been reached long before it was.

So, again, because civilized man suffers from bunions, ingrowing nails and the like, it is not necessary to *abolish* shoes, but let him wear a shoe that will restore to his feet the same freedom of movement and absence of compression that were *enjoyed by his unshod ancestors*.*

Returning now to the subject of constipation, let us ask, What has civilized man done, or is doing, and what has he left undone, that constipation should be so common? This question assumes that *uncivilized* peoples are *not* constipated. And while perhaps we are unable to present any direct evidence of this assumption, it will, I think, be admitted that even among civilized peoples the tendency to constipation *increases* in what we call the upper classes of civilized life—those who enjoy wealth, ease, refinement, education, etc.; while the tendency *decreases* among the agricultural and laboring classes, these last certainly leading lives that more nearly resemble those of our uncivilized ancestors.

The first departure from natural conditions, common with civilized peoples, by which the tendency to constipation is increased that we will consider, is that of *posture* during defecation.

Everyone knows what this posture *was* before the invention of seats and closets. Everyone knows what it is today when seats and closets are not available. It is well known also that dogs, cats and other animals instinctively assume certain postures during defecation that we understand are natural for them, and for this reason also beneficial and desirable.

The reversion to this normal posture in man as an efficacious remedy for constipation was practically demonstrated many years ago by the writers to whom I shall presently refer, but none of these writers has sufficiently accentuated what I have thought to be of prime importance in the proceeding, viz: The pressure of the thighs upon the walls of the abdomen as a contributive factor in the mechanical expulsion of the bowel contents. My own idea is that this is of sufficient importance to require that we should in some way endeavor to restore the thigh pressure upon the abdomen as one of our remedies for constipation.

This does not mean that we should abolish the comfort and convenience of our modern closet arrangement. Possibly the pressure of the thighs upon the abdomen could be reinstated by placing in front of the usual seat vertical foot-rests, planted firmly into the floor, at a suitable distance apart, and of a suitable height

* Since this paper was written there has appeared an article (in the *Popular Science Monthly* for Feb., 1912, pp. 138-141, by Dr. Richard C. Newton, on "Narrow Jaws and Small Feet," in which the author states that small jaws and irregular teeth are due to our not having chewed hard foods, as nature intended us to do, and adds: "There is only one other thing so generally distorted as the average human jaw, and that is the average human foot." He concludes with the remark: "We shall not get perfect manhood or womanhood until we obey nature's obvious laws and allow our children's feet and jaws to develop as they were intended to do." I quite agree with him.

(capable of a variable adjustment for different individuals) something like the foot-rests attached to the chairs used by "boot-blacks," or a firm horizontal bar, such as we see in hotel smoking rooms.

The patient, after having been seated in the usual way, could place the feet, one at a time, upon the foot-rests, and so remain until the evacuation were complete, when the feet could be easily replaced upon the floor before the patient rises from his seat.

A number of inventions have been devised and, I believe, patented for the construction of closet seats that were intended to improve posture during defecation, but none of them, so far as I know, has contributed to restore the factor of *thigh pressure*, the importance of which it is here desired to emphasize.

When we reflect that the pelvic cavity is surrounded by bony, inelastic walls, and that the rectum, especially, receives a firm backing from the sacrum and adjoining parts, and further, that in the normal posture, as the patient leans forward, the entrance to the pelvis, from above, is closed by the pressure of the abdominal contents; and finally, if we add the dynamic influence of the thigh columns, acting as levers, the fulcrum being at the acetabulum, the power at the knee joint and the resistance on the abdominal wall, it is hard to conceive of any mechanical contrivance better suited to secure the emptying of the lower bowel. And it is easy to realize how these natural powers are interfered with by the individual who *sits* with his *spinal* column almost at right angles to his *thigh* columns. We cannot improve upon Nature. The authors to whom I have referred as having practically demonstrated the utility of a normal posture during defecation as a remedy for constipation are as follows: Dr. Edward T. Williams¹ states that for *twenty years* he has found "a faulty posture at stool and consequent inertia of the abdominal muscles have been among the *commonest causes* of the disease in the patients under my care." Having described the tediousness of defecation in an individual seated in a closet, he adds: "Put the same man into the woods" * * * "at the call of nature he seeks the nearest thicket and there assumes a strictly physiological attitude. He neither sits nor stands; he squats. Every muscle of the back and abdomen is brought into play, the bowel is rapidly and completely emptied."

He adds: "We ought then to expect, what I have found to be the case, that the assumption of a correct posture at stool would prove a sufficient cure for what may be called passive constipation. The sitting posture should be interdicted and a stooping one substituted."

Dr. Wm. R. Fisher² says: "I have always found that decided benefit may be attained by the assumption of the squatting position by the patient during defecation. This is undoubtedly the natural posture for the act."

Dr. A. W. Abbott³ writes as follows: "That the squatting posture in man is favorable to the rapid expulsion of the contents of the bowels can be proved by assuming it after failure in the manner at present in vogue in our first-class closets. In the natural posture nature goes still further and re-inforces the power of the abdominal walls by the pressure of the thighs upon them." He adds: "We all know when a person suddenly squats down what high resolve and steady coolness are needed to prevent a disastrous explosion of intestinal gas, etc." He then asks: "Are the advantages of squatting of sufficient importance to counter-balance the comfort of a well-constructed closet seat, with its disadvantages of prolonged effort and frequent failure?"

"Civilization has its comforts and conveniences but we must make them conform to natural conditions if we wish to maintain a natural action of our physical organs." I have endeavored to promote this conformation to "natural conditions" by the foot-rests before mentioned, without disturbing the comfort of the seat.

As a further demonstration of the utility of thigh pressure in relieving constipation, I may mention the statement of S. W. Collier, of Chelsea⁴, England, who writes that he was "struck by the fact that for the twenty years that he had been in practice he had had to deal with a very large number of rowing men, but he could not remember a *single rowing man* who had ever come to him for chronic constipation."

He accounted for this by the pressure of the thighs upon the abdomen forcing bile from the liver into the intestine, and by the strengthening of the abdominal muscles occasioned by the exercise of rowing. I may here say that the supports upon which boatmen brace their feet in rowing are much the same as the foot-rests I have suggested for the closet.

Dr. H. Illoway, of Cincinnati⁵, to illustrate the movement cure of the disease, gives two figures, one representing the "rowing apparatus of Sachs," and the other a similar device by Ewer, both being contrivances by which the patient can practice rowing in his own home. But here, as before, thigh pressure seems to be again *in evidence*.

How this thigh pressure would act in women who wear corsets is too complicated a problem to be here considered, and any result would be useless. We can no more expect a normal action of the viscera in women whose bodies are constricted by ribs of steel than we would expect the foot-bound ladies of China to walk without assistance. Since our oriental friends, however, have recently given up foot-binding, why can not our sensible women do the same with corsets? Let the American woman *lead* in this reform. Why not?

Before leaving this part of the subject let us not fail to note how dreadfully deficient this thigh-pressure becomes in young children who are old enough to use the adult seat. Their legs

dangle towards the floor without touching it and they lean back, so that the thighs and spine are sometimes at an obtuse angle with each other. The child should certainly be provided with a *low* seat which would allow the feet to rest firmly on the floor and bring the thighs in contact with the abdomen in the natural way. Furthermore, the growing bowel, like the child itself, if "trained up in the way it should go," would probably be less likely "to depart from it" and become constipated in after life.

Finally, may I suggest that this pressure of the thighs upon the abdomen, during defecation in the natural posture, may possibly serve to so compress the internal organs as to close the lumen of the appendix and thus prevent the entrance into it of infected gases, fluids and solids during straining at stool? The frequency with which constipation is found to precede appendicitis would lend some color to this proposition, but I am not sufficiently familiar with the anatomical relations of the cecum and appendix to the abdominal wall to state whether this compression of the tube would or would not result from thigh pressure, as stated. The matter would seem, however, to be worthy of future investigation, when we consider the great frequency of appendicitis among highly-civilized peoples and its comparative rarity among the uncivilized.

One more remark as to the matter of posture; the tendency to revert to the natural posture as a *matter of choice*, at least with boys and country people, was until recently so pronounced that some of us can remember when hotel keepers displayed in their closets the sign, "Don't stand on the seats." Boyhood, besides representing the youth of the *individual*, also represents the youthful period of the *race*, the adolescence of civilization; hence, perhaps, a boy's preference for the ancestral posture.

Among the various remedies that have been used for habitual constipation may be mentioned mechanical *dilatation of the sphincter ani*. Dr. Geo. L. Romine reports over fifty cases treated successfully by this method⁶, and Dr. Edward M. Schaeffer⁷ describes cases of prolonged and obstinate constipation, accompanied with spasm of the sphincter ani, permanently relieved by mechanical dilatation. The literature contains numerous other reports of a similar description. Possibly this dilatation acts as an initial excitor of peristaltic action, just as dilatation of an os uteri will excite contractions of the uterine body.

In constipated persons who habitually take purgatives, their evacuations perhaps are never sufficiently solid to fully dilate the sphincter ani and thus the sphincter muscle may become more or less permanently contracted (so-called "spasm") so as to need artificial expansion, a condition, be it said, that could scarcely occur in those who use the normal posture, for this posture itself secures dilatation of the anal orifice by the consequent centrifugal tension of the skin attached to the circumference of the anal

opening. It may be added that this dilatation by natural posture may be so pronounced as to produce an actual eversion of the anal margin and thus contribute to a degree of cleanliness during the operation which would be impossible in the usual sitting position. I repeat, we can not improve upon nature.

There seems to be some difference of opinion as to whether a person should or should not read his morning paper, or a novel, while waiting in his closet for the bowel action. My own idea is that he should *not*. The normal mental attitude during defecation is reverie. Let the individual abdicate for the moment his higher cerebral powers and relegate the function of distributing nerve force to the spinal cord and its various reflex actions, by which defecation can be accomplished. In this way, perhaps, can we explain the well-known effect of tobacco and cigars in assisting peristalsis; they produce mental relaxation and *reverie*. Should one of our senators, after repairing to his closet on a peristaltic warning, direct his thoughts intensely to the important speech he is going to make at the expiration of "the morning hour" peristalsis would probably stop and defecation fail. In doing this he has unconsciously switched off his nerve currents from the department of defecation and turned them on to the department of speech making, two functions that normally cannot both go on at the same time. Our ancestors of the woods, in a profound reverie during defecation, probably stared (idiotically if you please) at some dead leaf or similar object, and suspending all brain work, allowed their spinal cords to do the rest. Hence the inference that we should *not* read in the closet.

The rôle of foods, drinks and fruits in the treatment of constipation is well known. Coarse foods, with some indigestible debris, increase peristalsis. Some persons do not drink enough water. Others drink tea, which, from its tannin, is astringent and constipating.

But the instances in which civilized man has departed from the dietary of his ancestors are extremely numerous. To mention a few: We civilized persons, as a rule, eat no bones, no bone marrow, no brains (except calves' brains occasionally). We throw away the shells of our cereal grains, which, like bones, contain the phosphatic salts we so much need. The millstones grind our grains, and our molars decay from disuse. Dentists thrive. We can scarcely eat an apple without throwing away the peel, which is more laxative than the pulp.

On the other hand, it may be said we get along pretty well. The average longevity of the race is increasing, owing to advances in medical science. The Twelfth Census^s (1900) shows that among an aggregate population of 75,793,991 for "the mainland of the United States" there were 3,504 persons who were aged 100 years and over. But, who can say that this number would not have increased to 10,000 or more, with a judicious

reversion to ancestral conditions? Possibly those who lived a century had not departed from ancestral habits so widely as the others.

Indeed the Census Report itself seems to sustain this idea, for of the 3,504 centenarians, we find that less than one-fourth, viz: 837, were white persons, while the remaining 2,667 were negroes, Indians, Chinese and Japanese, who, it may be presumed, lived more in accord with their ancestral *regime* than did the more highly civilized whites⁹. In fact the census figures show that the *least* civilized races had the *largest* number of centenarians, thus :

Aggregate population.	Centenarians.	Ratio of centenarians.
75,793,991	3,504	1 in 21,630
Whites, 66,664,144	837	1 in 79,646
Negroes, 8,785,183	2,553	1 in 3,441
Indians, 232,562	111	1 in 2,095
Japanese, 23,408	1	1 in 23,408
Chinese, 88,694	2	1 in 44,347

Thus, if the whole population had had the same proportion of centenarians as the negroes there would have been 22,027, instead of 3,504 ; and if there had been the same proportion of centenarians for the whole population as for the Indians, there would have been 36,178 instead of 3,504.

Hence, however well we may have been doing, it seems that by a reversion to ancestral conditions, we might possibly have done still better.

Few of us would imagine that discarding the shells of cereal grains could ever lead to a serious and fatal disease. But in one instance at least it has certainly done so. It has been completely demonstrated recently that the prevalent "beriberi" of oriental countries is produced by feeding upon "*polished* rice." Since this has been known, and the diet of the Japan sailor has been improved, beriberi has been completely eradicated from the Japanese Navy¹⁰ in which it used to be both prevalent and fatal. Both in man, and in experiments with pigeons and fowls, it has been demonstrated not only that the *disease* is produced by polished rice, but that it is rapidly and completely cured by administering the discarded polishings¹¹.

One investigator, Dr. Max Moszkowski, of Berlin¹², reaches the conclusion "that beriberi was really a disease of civilization, not attacking the untutored native who grows and husks his rice for himself, but appearing *only* when coolies are gathered together in numbers on plantations and get their rice brought to them *from mills*" (italics mine).

In the light of this new departure as to the cause and cure of beriberi we can scarcely avoid the reflection that the modern

prevalence of poliomyelitis may possibly be due to our discarding the shells of wheat grains, instead of using the crude products of our harvests in making a coarser bread that has been the "staff of life" for thousands of generations of ancestors. It would be no more surprising to find that the inflammation of *central* nerve structures should be caused by discarding the shells of wheat grains than it is now to realize that discarding the cortex of rice grains produces the *peripheral* neuritis of beriberi.

The doctrine of evolution (no longer an unproved hypothesis) is as directly applicable to our medical philosophy as to other departments of human knowledge. Man must be studied in all his relations. The laws of heredity, adaptation, reversion and variation are as immutable and as sternly relentless as those that determine the paths of the planets, and guide a wayward comet in its flight; they cannot be ignored. As I endeavored to show in a previous publication¹³, we still retain qualities bequeathed to us by our forebears of geologic time; so now it has been my purpose to show that we must study in detail our relations with a less remote ancestry and the benefits to be derived from a reversion to ancestral environments. And thus, perhaps, may we find an open door, the path from which, if judiciously followed, may (as in the instances before mentioned) lead to useful results, both in preventive and curative medicine.

BIBLIOGRAPHY.

1. *Bost. Med. and Surg. Jour.*, Aug. 23, 1888, p. 178.
2. *Med. Record*, N. Y., Vol. VIII, Jan. 1, 1873, p. 165.
3. *Northwestern Lancet*, Feb. 15, 1888, pp. 60-62.
4. *Lancet*, London, April 1, 1905, p. 862.
5. H. Illoway, *Treatise on Constipation*, 1897, p. 261.
6. *Therap. Gazette*, Detroit, Vol. XIX, Sept. 16, 1895, pp. 588-590.
7. *Phila. Med. News*, Vol. 46, March 7, 1885, pp. 261, 262.
8. Twelfth Census, 1900, "Population, Part 2," p. XLIX.
9. *Ibid.*, p. L.
10. *Lancet*, London, Nov. 4, 1911, p. 1266.
11. *Ibid.*, p. 1267.
12. *Lancet*, London, Dec. 2, 1911, p. 1570.*
13. "International Clinics," Vol. I, 13th Series, 1903, pp. 187-198.

Dr. Mallory mentioned an observation of interest in this connection, namely, that the natives of the hill country of the Philippine Islands, savages only a degree above the Bushmen of Africa, cannot be induced to abandon the squatting posture for defecation. He had been puzzled to explain this tenacious hold on their primitive custom, when Dr. King's teaching of the importance of thigh pressure in parturition came back to Dr. Mallory, and he had concluded that instinct had taught these savages the importance of the same force as an aid to defecation.

*For a bibliography comprising ten titles on beri-beri, see *Lancet*, London, Nov. 4, 1911, note to page 1267.

Dr. A. B. Hooe had been anxious to hear the paper because Dr. King always presents something of interest. But Dr. Hooe was of the opinion that Dr. King's statistics were entirely unreliable; the greatest number of centenarians being among the negroes is easily explicable to anyone familiar with the characteristics of that race; they are predisposed to claim old age as a mark of distinction, and in addition to this they really do not know how old they are. Dr. Hooe supposed that the Indian medicine men would be disposed to claim great age so as to augment their importance and authority.

He expressed the opinion that we have more appendicitis among the higher classes because such persons are meat eaters, the lower classes are cereal eaters. Appendicitis is more prevalent among meat eaters because meat furnishes a favorable medium for the propagation of the colon bacillus, the organism most often responsible for inflammations of the appendix.

One cause of constipation is the complete atony of the bowel which follows acute infections. Other causes, very prevalent too, are laziness and water starvation.

Dr. Williams said that Dr. Mallory's remarks about the Philippine natives prompted him to speak of the natives of South Africa who subsist upon a cereal diet largely, and who squat at defecation, but who nevertheless apply in large numbers at the dispensaries for treatment for dyspepsia and chronic constipation. The Boer women, too, are particularly subject to constipation, albeit the wide veldt is the sole provision they make for privy purposes; but they drink enormous quantities of coffee, eat large quantities of fine starches and take much homemade and patent medicine. The French, although very highly civilized, have no ordinary closet seats for toilet purposes, only a sink over which the person squats. It may be suggested that one cause for constipation is that civilized life does not give place for the mental attitude of reverie, which is important for the successful evacuation of the bowels. On this account a newspaper may be a useful means of relaxation, rather than a detriment to defecation.

Dr. Skinner wished to speak of a matter in connection with the statistics given by Dr. King. Lorand, in his book, "Old Age Deferred," speaks of the very large proportion of centenarians in the population of Bulgaria. Lorand attributed this large proportion, viz: 3,800 centenarians in a population of 7,000,000, to the diet consisting largely of fermented milk; his opinion is based on the same considerations as are the ideas of Metchnikoff upon the subject, while in Germany with 61,000,000 inhabitants there are but 71 persons over 100 years old.

Dr. I. S. Stone wished to speak to the practical side of the question. Nothing had been said about the internal causes of constipation. Those engaged in abdominal surgery find that very many cases of constipation are due to various forms of enterop-

tosis, and that relief may follow a properly chosen operation. If we look at Dr. King's proposed treatment of constipation from the standpoint of thigh pressure alone, how could it possibly give relief in these extreme prolapses of the colon? If we examine cases in which the Lane operation has been done, it may be seen that it is an easy matter to substitute a chronic diarrhea for a chronic constipation by merely removing a portion of the colon.

Dr. W. P. Carr said that Dr. King had made some practical suggestions in regard to the treatment of constipation, but hardly was seeking to cover the whole subject. It seemed to Dr. Carr doubtful if the thigh pressure from squatting would do any good after kinks of the colon have occurred, but the habitual use of the posture and application of pressure might prevent such kinks occurring. Certainly personal experience showed the advantage of the squatting posture in overcoming constipation.

Dr. Macatee said that Dr. King had proposed that the American women should lead a campaign for the elimination of corset wearing, and that he possibly had overlooked the fact that in many cases of intestinal derangement associated with chronic constipation, properly applied corsets are advised by gastro-enterologists and are worn with great advantage by the patients. It seemed to Dr. Macatee that evidence tending to lead one to any conclusion should carefully be weighed to determine whether it might be susceptible of more than one construction. To his own mind the legend "Do not stand on the seat," displayed by the country inn-keeper for the warning of frequenters of his personal comfort resort, rather indicated the insidious onset of the same civilization that Dr. King so much deplored, in that the reasons for its display is the effete disinclination of the civilized farm boys and countrymen to follow their predecessors in sitting in these same places of retreat.

Dr. King said that it was always a pleasure to him to read a paper before the Society because his papers always received a kind reception and ample discussion. He had read the paper at the request of the Corresponding Secretary, and the subject was suggested by some remarks in the discussion of Dr. Vaughan's cases of Lane's operation, the remarks being that the operation impugned the Creator's wisdom. Certainly such a radical operation could be useful in only extreme cases.

Dr. Hooe's remarks upon the uncertainty of the age of old negroes, etc., could be best answered by saying that the figures were taken from the census reports, and that the Census Office officials were no doubt quite aware of the same uncertainty and made proper allowance therefor.

The Bulgarians spoken of by Dr. Skinner may derive some benefit from the diet of fermented milk, but they no doubt are a rural population, drinking water, and eating coarse unshelled cereal food largely. Dr. King had been interested in Dr. Mallory's

observations upon the Philippine natives. Dr. Stone's observations had in mind the extreme cases, in which the surgeon may very well be called in, and as for the necessity of wearing corsets he recognized that some individuals might be so far disabled by the degenerating influence of civilization as to need to be patched up with corsets and other extraneous apparatus.

CASE OF TUMOR OF BRAIN.*

THE EARLY SYMPTOMS AND THE OCULAR FINDINGS.

By OSCAR WILKINSON, A. M., M. D.,

Washington, D. C.

Miss D. C., aged 25, came to see me, November 3, 1911, giving the following history: She had been troubled with basilar headache, for which she had been treated for two months by her family physician, who called it "nervous neuralgia." On awaking in the morning she could not open her eyes until after having had her coffee. She complained of severe pain in the back of the neck, in both eyes and back of the left ear, associated at times with a "buzzing" in the ears. The headache had been so severe on two occasions as to cause nausea and vomiting, for which she was obliged to call in her physician. She had been employed for the previous six months addressing envelopes, addressing as many as one thousand a day, and attributed her pains to the overuse of her eyes.

I had first seen her in March, 1906. At that time she complained of burning in the eyes and severe headaches. I gave her correcting lenses which relieved her. I saw her again in February, 1907, when she told of a return of the headaches. She had discontinued the use of her glasses and was doing close work. She also complained of a ringing in her ears. She had a slight catarrh in both ears, associated with post-nasal catarrh. I re-ordered the same lenses and treated her for catarrh, once or twice a week for about five weeks, when she was relieved of the ringing noises in her ears and of her headaches.

I did not see her from that time until November 3, 1911. Examination of her eyes on that date gave the following:

R. + 0.62 = 0.25 cyl. ax. 180. Vision, 6-5.
L. + 0.62 = 0.25 cyl. ax. 180. Vision, 6-5.

She had 4-5 of left hyperphoria; no lateral defect of muscles; fundus of each eye normal and tension normal. The above correction was ordered.

* Reported by Dr. W. P. Carr to the Medical Society, January 24, 1912.

She returned, November 8; had not had any relief from her headaches. I then gave her calomel and a tonic of tincture of nux vomica, gentian and quinine. She came back November 12, and told of having been very ill after taking the calomel; however, I had given her only $1\frac{1}{2}$ grains. I saw her again November 18. She had seen double that morning while dressing and twice on her way to my office. On examination I could find no diplopia either for far or near; the movements of the eyes were normal; vision of the right eye was reduced to 6-9, and the ophthalmoscope showed a very well-marked case of papillitis. The left eye was normal. As she had had headaches early in the mornings and now had developed a papillitis, I decided to put her on *specific* medication; however, I could not obtain the history of any specific lesion. I ordered potassium iodide solution, five drops in water after meals, increasing to ten drops within a few days, and gave her mercury protiodide pills, 1-6 of a grain t. i. d.

November 24 she returned, still complaining of headache, but had had no return of the vomiting and nausea. She said she was unable to sleep on account of the pain. I gave her codeine sulphate to be taken at night. The papillitis in the right eye was now more of a choked disc, and the left eye showed very well-marked papillitis; however, the vision in this eye was still normal, vision in the right eye remaining 6-9.

November 26 I had a telephone message that she had spent a very bad night, was very much nauseated and unable to retain anything on her stomach. She had taken $1\frac{1}{2}$ grains of calomel the previous day, to which I attributed the nausea and vomiting. She was in such distress that I gave her a hypodermic of heroin, 1-12 of a grain, and had a report the following morning that she had had a comfortable night. The papillitis had now increased in the left eye and remained stationary in the right eye. The pain in her eyes was so severe that I ordered cold and hot applications to the eyes and an ice pack to the back of her neck, from which she obtained much relief. At this time she was taking 15 grains of potassium iodide, and her gums were slightly affected by the protiodide.

I left the city on the evening of the 29th of November, and returned on the night of the 30th. Early December 1 I was called by her sister, who informed me that the patient was much worse and had been unable to retain her urine for the previous twenty-four hours. I called Dr. Roy and took him to see her; he took charge of the medical treatment from that time. At first he was of the opinion that we had a case of hysteria, and the eye grounds were the only element he could see which contradicted the diagnosis of hysteria. I had not attempted to take the field of vision until December 2, and then was unable to get any field for color, the patient being practically unable to discern any color until it was within 5 degrees of the point of fixation. The field for light was normal in each eye.

About December 7, her condition gradually growing worse, her mental condition being decidedly impaired, whereas, up to December 1 her mind had been exceedingly active, I suggested, in order to remove any element of doubt in regard to the papillitis being present, that I would ask Dr. Newell to see the case with me. On the same day Dr. Newell saw the case with Dr. Roy and myself. Dr. Newell concurred in the diagnosis of a very well-marked case of papillitis in both eyes. The second day after Dr. Newell saw her she went to the hospital and I asked Dr. Shute to see her. On one occasion during her stay in the hospital the right eye showed some clearing up of the papillitis, and the general edematous condition of the retina was not so well marked, but this lasted only for a few days. The eye grounds were practically unchanged from about the 26th of November until her death, January 4, 1912.

THE OPERATION.

By W. P. CARR, M. D., Washington, D. C.

Tumors of the cortex of the brain can usually be located with comparative certainty, but the definite localization of deep-seated cerebral tumors is seldom easy and often impossible. In the majority of cases an approximate location sufficient for practical purposes can be made before operating. But in this case, and in another that I had recently, there were misleading symptoms that even prevented the determination of which side of the brain was affected.

In this case, for instance, the presence of a tumor was fairly well established, and yet there were no definite localizing symptoms. The natural inference therefore was that the tumor was in one of the silent areas of the brain. The symptoms were chiefly those of general intracranial pressure; but there appeared to be rather more disturbance anteriorly than posteriorly. It was therefore a natural conclusion that the tumor was in one of the frontal lobes.

While there was no paralysis it was noticed that there was much less movement of the left side of the body than of the right. This was taken as an indication of greater pressure in the right hemisphere, causing a diminution of movement in the left side of the body, and led me to open the skull on the right side. Evidently, however, this tumor acted as an irritative lesion and not a depressing one. And therein lay our very natural mistake.*

If we had recognized the fact that there was not so much lessened movement of the left leg as increased irritability and movement of the right, then I think the skull would have been opened

* Soft tumor of left thalamus, probably malignant; microscopical examination not completed.

upon the left side and the tumor probably discovered at the operation.

I have for several years advocated making very large osteoplastic flaps in operating for brain tumors, unless they are very definitely located upon the cortex; because I believe it quite possible in most cases to palpate a deep-seated tumor with a gentle touch of the fingers on the surface of the brain, provided there is sufficient room to allow a certain wave-like movement of the brain substance under pressure of the finger. This would be impossible through a small opening, but I have done it in several cases where a large flap was made, and found that the tumor, even when softer than the brain, still gives a distinct sense of resistance. Even had this failed I think I would have detected this tumor with the grooved director, for I did pass one directly through the corresponding part of the opposite side, and the tumor, before hardening in formalin, was so soft that the sensation, I think, would have been the same as in passing the director into a cyst; and also, upon withdrawing the grooved director, it is probable that some of the clear, jelly-like substance of the tumor would have been seen in the groove of the instrument. I always turn the director in the brain before withdrawing it, and in this way have frequently succeeded in removing a small core for examination.

But all this does not mean that this particular patient could have been saved. In this case the patient evidently had little natural resistance, and would probably not have survived the removal of the growth. The tumor is also very evidently malignant and of a rapid growing variety, and would undoubtedly have recurred even if it had been successfully removed. However, if the patient had been of a phlegmatic type, and the tumor benign and consequently not fused with the surrounding tissues, then I believe it could have been removed with complete success, and the patient permanently cured.

I present a photograph of such a tumor that was removed from practically the same situation in the brain. In this case the patient recovered from the operation, and after two weeks was sitting up and walking about the ward with the wound perfectly healed. He then however went into a state of collapse, and died twenty-two days after the operation. A careful autopsy by the late Dr. James Carroll and myself did not reveal any cause of death in the cranial cavity. The wounds were perfectly healed, and there was no sign of inflammation. There was beginning tuberculosis of the lungs and a rather mild nephritis. We concluded that his death must have been due to renal insufficiency.

There are several things to be learned from such cases, I think:

1. That no region of the brain is really inaccessible or prohibitive of operative interference except the medulla and perhaps the pons.

2. That while exact location before operating is extremely desirable, it is not necessarily essential.

3. If it is known which side the tumor is on and whether it is in the cerebrum or cerebellum it can usually be found and removed.

The percentage of real cures in brain tumors will, however, always remain small, especially in the deep growths, because so many of them are malignant. Tumors arising from the meninges are more easily accessible, more easily located and more apt to be benign.

An interesting fact about the case presented tonight is that it strongly resembles in its physical aspects a case of hydrocephalus. The ventricles of both sides were distended with fluid, as will be seen in the specimen. The tumor itself, before hardening, was almost fluid in consistency. Its pressure was therefore exerted evenly in all directions and dilated the ventricles without undue pressure or injury to any of the surrounding parts. This even distribution of the pressure and the fact that both lateral ventricles were distended would seem to account for the lack of localizing symptoms. In this respect it strongly resembled a case of hydrocephalus, where sometimes there is enormous distension without any symptoms in children whose cranial bones have not united and yield to the pressure, and where, even in adults, there may be no symptoms except those due to general intracranial pressure.

THALAMIC TUMOR IN THE VENTRICLES WITH FRONTAL SYMPTOMS.

By TOM A. WILLIAMS, M. B., C. M., Edin.,

Washington, D. C.

On December 8 I saw this patient with Dr. Roy. Anamnesis revealed only a marked mental torpor with an occasional fatuous response, so it was soon abandoned and the physical examination proceeded with. This showed marked, although equal, exaggeration of the patellar and achilles reflexes and an absence of the abdominal and cutaneous reflexes. This, of course, was an index of interference with the functions of the precentral gyri; but afforded no localizing information, on account of the absence of inequality on the two sides. But the plantar response gave further information; for while it was of the flexor type on the left foot, which showed that the projection fibers were but little affected, there was on the right side, although the great toe flexed, a marked spreading and extension of the four lesser toes. This indicated, therefore, an interference with the right pyramidal

tract of a greater degree than was shown in the left corresponding tract. That is to say, if the lesion were supratentorial, it would be on the left side of the brain.

The motility could not be satisfactorily examined, for voluntary movements could not be commanded. Inspection of involuntary movement showed a distinct asymmetry of the face, but the patient could close either eye independently. Pupils widely dilated and iridoplegic. There was a drooping of the left side of the palate, an occasional slight deviation of the ocular axes, and the grasp was very feeble. There was marked congestion of the eyelids and choking of the optic discs. No deafness was perceptible.

As the patient could not cooperate satisfactorily, further examination was postponed until the next day. This was done at George Washington Hospital, where she was taken. She was lying in a semicoma, groaning, and restlessly and slowly moving the left arm and leg. The significance of this was not adequately estimated at the time. The pulse was small and not slow. The palate was no longer deviating. Reflexes of the right arm were more active than those of the left, again pointing to a left-side lesion. There was an exudate in the left of the disc.

The following day the facial paresis had disappeared. There was no longer extension of the outer toes. The arm movements were less. The disc was not more choked. She appeared to see better. She was more collected, and said that there was pain in her forehead and slight pain in the occiput. Furthermore, she was able to respond to the test for the diadokokinesis, which showed that although the movements were very slight, this function was not impaired.

The papilloedema and the coma disappeared, but as no definite focal symptoms then appeared it was decided not to operate for the present, and the patient returned home.

Moria was at the time the most marked feature of the case. This symptom, consisting of an ill-timed facetiousness of somewhat infantile humor, is regarded as characteristic of frontal-lobe involvement, and we believed that the neoplasm might be in the corpus callosum, as there were no convulsions such as are apt to occur as a frontal growth extends backwards towards the Rolandic area. There was also an absence of the mutism which occurs in some cases of large left-frontal tumor. But the left could not be decided upon; for, while the toe sign and increased right-arm reflexes and deviation of the palate to the left pointed to an interference with the left projection fibers, the weakness of the left face contradicted this. However, the excursive movements of the left arm and leg were, as I now believe, erroneously interpreted as part of the general restlessness of semicoma, which could not show itself on the right side because of the supposed interference with motility by a lesion of the left frontal lobe pressing backwards enough to impair right-sided movements.

Soon afterwards examination showed a positive Brudzinski sign bilaterally. The Kernig angle on the left was 60 degrees, and on the right 70 degrees. The uvula was deviated to the left. The left face was comparatively inert. The right lesser toes again extended on stroking the sole. There was a moderate starting of the right papilla without bulging or distinct exudate. The inertia of the left face, recurring again, contradicted the other signs, all of which pointed to a lesion of the left side. This appearance of the face may have been due to a general inertia, with a relative irritation of the right side of the face; but this was not adequately considered at the time, I regret to say. Although she was either very somnolent or silly and flighty, on one occasion, although she could hardly recognize persons, while being tested for a passing diplopia she said, when I covered the left eye, that the left object vanished.

Through a misunderstanding I was not able to be present at the operation, when Dr. Carr decided to explore the left frontal lobe. Any relief thus given did not improve the symptoms, and the patient died some days later.

Interpretation of the symptoms.—The intense moria was certainly not due to the thalamic lesion found post mortem. It is a symptom of impairment of the function of frontal lobes. It was due to intense pressure of these lobes produced by the damming of the cerebro-spinal fluid into the anterior limbs of the lateral ventricles by the blocking of its passage on account of the closure of the third ventricle by the growth in the left thalamus extending across the sagittal plane. Thus, it was a frontal syndrome from which the patient suffered; although the growth was not frontal, but thalamic.

However, had the visual fields been carefully explored before the occurrence of the internal hydrocephalus, it is hardly likely that some hemianopsia would not have been found on account of the interference with the fibers leading from the optic tract or those from the calcarine region *en route* to the thalamic region. Again, an examination of the attitude sense would have revealed a distinct impairment, on account of the interference with the afferent fibers from the spinal cord which find their last relay station in the thalamus before proceeding to the cortex. It is likely, too, that other forms of sensibility might have been impaired in some degree, and an incomplete hemihypæsthesia might have been revealed had the patient been examined neurologically before the pressure upon her frontal lobes prevented intelligent responses.

The thalamic form of ataxia should also have been revealed had she been able to perform the directed movements required for ascertaining the defect. But when I first saw the patient none of these tests could be performed; and the syndrome was an almost purely frontal one, and entirely prevented a diagnosis of

the condition which leads to it, so that we were helpless even during the operation.

The case affords another illustration of the supreme importance of a proper neurological examination of cases of cerebral tumor before the tension has increased so as to prevent coöperation of the patient, and before the focalizing signs become masked by remote signs such as dominated the picture in this case.

Although in this particular case the tumor was not accessible to surgery, yet in other cases, especially those in the posterior fossa, the local signs are very readily masked by those remote ones due to blockage of the ventricular circulation.

Above all is it important that patients exhibiting what is often loosely called hysterical behavior should be examined by a competent neurologist, to ascertain if the genesis of their peculiar conduct is really hysterical in mechanism, or whether their peculiarities are not those of pseudo-hysteria from organic defect. I cannot repeat too often that the diagnosis of hysteria should never be made by exclusion, but always, if possible, by its genesis; and if that is not possible, by the form of the syndrome exhibited, by which is meant the inconsistency of the symptoms shown with those of the topographical arrangement of physiological groupings characteristic of organic or functional disease arising in the body as against their consistency with functional groupings comprised under the psychological rubric, association of ideas.

Dr. Roy first saw the patient December 1st, and would have regarded the case as one of hysteria except for the presence of the choked disc, which forced him to regard it one of organic disease of the brain. The patient, when he first saw her, was weeping, laughing and talking with a certain incoherence at times. His examination showed absolutely no paralysis, anesthesia, etc. He at one time thought there was some paralysis of the uvula, but had been uncertain as to this. The location of the tumor, of course, explained why there was no paralysis. The occurrence of vomiting without much nausea was suggestive, but not conclusive evidence of intra cranial disease.

Dr. Williams was surprised, not to say a little pained, that Dr. Roy had entertained the idea of the diagnosis of hysteria, especially in view of his, Dr. Williams', oft reiterated and very distinct views on this point. This patient was clearly a dement, not at all hysterical. He had thought it was a frontal lobe tumor, but could not determine upon which side. It was quite impossible to determine whether there was any involvement back of the frontal lobes. He had seen her too late to ascertain whether there had been any hemianopsia. Examination of the specimen showed that the tumor had blocked the anterior limb of the lateral ventricle, thus causing an almost pure frontal lobe syndrome, although the tumor itself was situated somewhat further back.

Dr. Roy said that when he had seen the patient, three days before Dr. Williams' examination, there was absolutely no dementia. She was quite intelligent, and displayed those symptoms commonly called hysterical, whatever may be Dr. Williams' use of that term. Dr. Roy was unable to account for the serious discrepancy between Dr. Williams' and his observations as to paralysis of the arm and leg. As Dr. Williams had said, the symptoms were those of a frontal lobe syndrome, but this was due to the hydrocephalus caused by the tumor, and not to the tumor itself.

Dr. Carr felt that Dr. Williams' notes were erroneous as to the limbs involved. His own distinct recollection was that the right limbs, and not the left, were in active motion. This had been construed as an indication of relative paralysis of the opposite limbs, whereas it was probably a symptom of irritation in the left cerebral hemisphere.

LEPROSY.*

By D. S. LAMB, A. M., M. D.,

Washington, D. C.

Leprosy is of two forms, the tuberculous and the anesthetic. Both are due to an infection with the lepra bacillus which, as is well known, resembles very much the tubercle bacillus. The disease is probably acquired by inoculation from a discharging leprous ulcer. It is said that fomites can convey the infection and that houses and even the soil may be infected. The disease is most prevalent in India, and next to that, in China, Japan, the Philippines, Siberia, Russia, Hawaii, Norway, Mexico. In this country it is rare, most often seen in New Orleans, on the Pacific coast, and in Minnesota; occasionally a case is found in one of the large cities. The tuberculous form has characteristic appearances and symptoms; the anesthetic form follows the invasion of nerve trunks by the bacillus. The tuberculous form lasts about ten years and the anesthetic form about twenty years, provided the patient does not die of some intercurrent disease. I am told that a cure is uncertain, because often after a patient has apparently been cured and remained well for years, he has a relapse. The only case that I have ever seen was at the Johns Hopkins Hospital many years ago.

The Army Medical Museum has 47 wet specimens of leprosy, mostly the tuberculous form; a few of the anesthetic form. It

* Illustrative specimens from the Army Medical Museum shown to the Medical Society, February 14, 1912.

has also a number of models showing the skin lesions in both forms. The Museum has donated a number of specimens to other institutions. All the wet specimens were received from the Philippines.

This is not a time to speak of the history, symptoms, treatment and cure of the disease. An analysis of the specimens and their accompanying records shows the usual lesions that are found. The clinical histories are very imperfect. The specimens first received were brought from Manila by Dr. E. R. Hodge, of the Army Medical Museum, and he either made the examinations himself or was present when they were made. The later specimens were sent to the Museum by a Board for the Study of Tropical Diseases, serving in the Philippines, of which for most of the time Dr. C. F. Craig, Medical Corps, U. S. Army, was Secretary and reported the results of the examinations. He also is now connected with the Army Medical Museum.

In all the chronic cases there was emaciation and the tissues were anemic. In the tuberculous form the skin and sometimes the mucous membranes, especially of the nose and larynx, showed the leprous tubercle; and sometimes the *lepra bacillus* was found in the tubercles. Sometimes such tubercles were found in the lungs. Frequently the tubercles broke down and suppurating ulcers were found in the skin and elsewhere. Sometimes the destruction of parts was extreme, for instance in the face there would be simply a cavity representing the mouth, nose and eyes. The terminal phalanges were often lost. The lesion of the skin in the anesthetic form was usually that of hyperkeratosis.

As stated, the larynx sometimes showed leprous tubercles and ulcers. The lungs also; and at other times the lungs were congested, oedematous, or showed hypostatic pneumonia, or punctate hemorrhages; sometimes subpleural hemorrhages or adhesions. The heart was usually atrophied but sometimes enlarged and dilated and showed chronic valvular disease; sometimes old pericarditis; hemorrhage into its tissue; fatty degeneration; occasionally vegetative endocarditis with *lepra bacilli* in the vegetations. Sometimes gastritis; leprous tubercles and ulcers in the small intestine with corresponding involvement of the mesenteric glands. The liver was usually atrophied, but sometimes enlarged; sometimes cirrhotic; often fatty; sometimes with passive congestion. The spleen was usually atrophied, sometimes enlarged, congested. The kidneys usually atrophied; sometimes enlarged.

As a matter of fact, death often occurred from some intercurrent disease as cholera, dysentery, beriberi, etc., and some of the lesions named were possibly due to these intercurrent diseases.

Dr. Williams said that Dr. Lamb had not mentioned the prevalence of the disease in Africa. During Dr. Williams' service in South Africa he had seen very many segregated cases.

Leprosy occurs most often among the natives whose habit is to secrete the victim, if possible; but the magistrates are alert in this matter, find the lepers and deport them to an island leper colony. On the northwest coast, in Spanish and Portuguese colonies, the disease is quite prevalent, and there is no effort put forth to stop it. As to the forms of the disease, he thought it unfortunate to insist upon the anesthetic and the tubercular form, because the manifestations are usually mixed, and the disease is the same however it expresses itself. As to hyperkeratosis, the peripheral neural involvement may cause atrophy of the cutaneous structures instead of keratosis, just as in syringomyelia and other allied diseases.

Dr. Simpson had come in contact with the celebrated Early case, having seen him here and having had charge of him in New York at the Skin and Cancer Hospital. As regards the controversy as to the correctness of the diagnosis Dr. Bulkley was the only man on the staff who maintained that Early did not have leprosy. Early was presented before the Dermatological Society in New York, and all there present were convinced as to the diagnosis except Bulkley and one other. Dr. Simpson had seen one other case at The George Washington University clinic. There had been a question as to the diagnosis in this case, but the distinct, pigmented, circumscribed, anesthetic spots and a negative Wasserman reaction seemed to make the diagnosis clear. This patient finally went to New York, and Dr. Trimble reported his case to the Academy of Medicine as a case of leprosy. Only one or two questioned the diagnosis.

Dr. Spear had seen a few cases of leprosy. He would merely call attention to the possibility of making a diagnosis by excising a tubercle and finding the lepra bacillus in the sections thereof. When one of the ships was at Honolulu a Hawaiian applied for enlistment. A small nodule was accidentally seen. It was excised and was found to be leprosy.

TOOK HIS ADVICE.

Once upon a time a very cool man called on his physician and asked him for medical advice.

"Take a tonic and dismiss from your mind all that tends to worry you," said the physician.

Several months afterward the patient received a bill from the physician asking him to remit three guineas, and answered it thus:

"Dear Doctor—I have taken a tonic and your advice. Your bill tends to worry me, so I dismiss it from my mind."

Moral—Advice sometimes defeats its giver.—*Answers.*

CASE OF SYRINGOMYELIA, SAID TO HAVE SHOWN
ITSELF AFTER ELECTRIC SHOCK.*

BY TOM A. WILLIAMS, C. M., M. D., EDIN.,

Washington, D. C.

Dr. Williams stated that the disease first manifested itself a few weeks after an electric shock. A man, age 21, when seen three years previously, showed marked muscular atrophy of the small muscles of the hands, with loss of power to flex and pronate the right wrist, flex and adduct the right thumb, along with weakness of the muscles of the wrist and hand. On the left side the fingers and thumb could be partly flexed. The deep reflexes were exaggerated in the lower extremities, and the right great toe extended when stroking the sole; the cutaneous reflexes were very faint.

Sensibility to cotton wool was diminished over the dorsum of the right second metacarpal, elsewhere intact. Pin prick and deep pain were felt everywhere, though the former was perhaps diminished over the wrist and hands, especially towards the ulnar border. Cold was felt as warm over the left dorsum, especially towards the ulnar border. Sometimes perception was correct, and was always so if the stimulus was severe and prolonged. There was delayed sensation as to warmth, but not to heat. On the right warm was called cold over second metacarpal; elsewhere sensibility was not impaired. He was able to detect two compass points at normal distances. There was a half-dollar area of hypesthesia to warm at the back of the neck, one inch to left of sixth cervical vertebra. The hands, although red, showed no distinct cutaneous atrophies.

The disease has steadily progressed for six years; but since my first examination, three years ago, when I recommended light work, he believed that he was better for a time. Now the sensibility to pricking or coolness has gone distinctly from the left arm, and is diminished higher up and on the other side. The right hand is rigid in the claw position, and the muscular atrophy has progressed.

The etiology alleged is highly improbable if the case is one of true spinal gliosis, of which it bears all the marks. It is the first case reported in Washington, having been presented to the Society of Nervous and Mental Diseases in 1908 by the present reporter. The full examination is not now set down, in order to save space in reporting what is only a presentation.

* Reported to the Medical Society, February 7, 1912.

DIETETICS. A SYMPOSIUM.*

GENERAL PRINCIPLES OF FEEDING, PARTICULARLY IN GOUT.

By PHILIP S. ROY, M. D.,

Washington, D. C.

Food is one of our most important therapeutic agents, and I wish in the limited time allotted to me to first urge the importance of making our food therapy as definite as our drug therapy. In all the hospitals that have come under my observation the feeding of patients has been conducted in the most crude and unscientific way. On several occasions I have carefully calculated the quantity of food given to patients in the open or free wards in hospitals in this city, the patient receiving what is called regular diet. I found the calories were never over a thousand a day, from a third to a half less than should have been given.

Many patients who come to us suffering from fatigue need no other therapy than an increase of food. These patients, often from overwork, both mental and physical, feel no special desire for food, and frequently go without meals, even when they are being furnished at their homes or boarding houses with a very fair diet list. Carbohydrates, fats, proteids, water and salts make up the food of the body. All the salts are gotten in sufficient quantities through the regular food stuffs with the exception of chloride of sodium and, at times, lime salts. In a mixed diet we generally find the proteids constitute about one-sixth of our calories, carbohydrates three-sixths, and the fats two-sixths. In considering the quantity of water needed each day we must remember that from carbohydrate and fat metabolism we make daily about 400 cc. Fat furnishes to the system double the energy that is furnished by either proteids or carbohydrates, but carbohydrates have a special food value in that they protect the proteids of the body from waste. This quality we can readily conceive is of great value at all times and particularly in many acute diseases.

No one can intelligently feed a patient without definitely knowing what is a maintenance diet; in other words, what number of calories is necessary to keep a person of a certain height and age up to a perfect physical standard; and where we find that a patient for age and height is excessive in weight we must have an accurate knowledge of food values in order to intelligently furnish him with the proper regimen. What I have said as regards maintenance diet and reduction feeding holds good in every line of food therapy.

I wish to say something about two of our foods—water and chloride of sodium—and in both cases I want to speak of their restriction in certain diseases.

* Read before the Medical Society, February 7, 1912.

In diseases of the bloodvessels and the heart the restriction of water is of vast therapeutic importance, because in reducing the volume of blood we are putting less work upon the heart and bloodvessels, for it takes less muscular force to send the reduced quantity of blood through the vessels, and the smaller quantity of blood coming to the heart and passing through the vessels imposes upon both the heart and bloodvessels less muscular strain.

In diseases of the kidney the reduction in the quantity of water not only lessens the strain upon the damaged kidney in eliminating it from the system, but it prevents the water being stored up in the tissues, thereby producing dropsy. In cirrhosis of the liver the abdominal dropsy occurring in that disease can in many cases be entirely relieved by reducing the quantity of water. In chlorosis or simple anemia water should be given as sparingly as possible consistently with health, and one of the great reasons why we should lessen water in chlorosis is that in anemia we know how prone the tissues are to become waterlogged.

In all forms of hemorrhage, but particularly of the alimentary canal, reducing the water renders the recurrence of hemorrhage far less likely. In reduction cures for obesity, reducing the water at meal times lessens appetite; also meals are taken more slowly when fluids are not taken with the meals, and less food is needed to satisfy the appetite. Water does add to tissue weight—another reason for restricting water in reduction cures.

So much has been written lately upon the restriction of salt in nephritis and its attendant edema, that I feel it is not necessary for me to say much on this subject. The restriction of salt lessens thirst, and that enables us better to limit our water supply without suffering to the patient in all cases where both water and salt are considered harmful. Another factor that operates to reduce edemas when salt is restricted is the facility of water evaporation from the lungs and the surface of the skin when the concentration of the body fluids becomes reduced. I consider three pints of water a restricted water diet.

We know that in all diseases of the kidney, among the first functioning powers to be lost is the elimination of salt from the tissues, and the salt held back in the system prevents the elimination of water. It is interesting to know that the water held in the tissues by salt in diseases of the kidney, does not show itself first as dropsy, and it is only by careful weighing the patient each day and measuring the intake and output of water that we learn that our patient is rapidly storing water in the tissues, which, after a few weeks, shows itself in visible dropsy. About two grams of chloride of sodium a day is sufficient to maintain the salt equilibrium, and this amount can be given in any case.

There can be no question that in epilepsy the restriction of salt greatly aids the bromide treatment, and in certain inflammatory conditions of serous membrane and in certain stages of croupous pneumonia the restriction of salt is of therapeutic value.

Now a few words about feeding in gout. We all know that in some way, though not exactly understood, uric acid plays an important part in the causation of gout, and that this uric acid is formed from what we call the purin bodies: Purin, hypoxanthin, xanthin, uric acid, adenin, and guanin; and that uric acid is made from these purin bodies found in the body which is called endogenous uric acid, and from the purin bodies found in the food, exogenous uric acid. We also know that probably gout is not due to an excess of uric acid but to the uric acid being held back in the blood. The cause of this is not clear.

It is impossible for us to determine a gouty condition definitely without the most careful series of urinary analyses. Von Noorden places his patients upon a diet free of purin for five days, and then estimates the amount of uric acid eliminated each day. If he finds that each day less uric acid is eliminated than is normal he suspects a gouty condition. He then places the patient upon a normal purin diet. He knows how much uric acid should be eliminated from the quantity of purin he has given his patient, and if this falls below normal after the diet has been continued for five or six days he then feels that he is warranted in stating that the patient is probably a gouty patient. In quite a number of cases by this method he has been able to determine a gouty condition when a diagnosis has been made of various pathological conditions other than gout.

There are certain diseases that we must remember always have a great excess of uric acid—many of the febrile diseases, pneumonia, advanced stages of leukemia, and progressive severe diabetes.

As regards the diet of gouty patients this seems a matter of great perplexity to the medical profession, and yet the only scientific question can be to what extent is the patient taking in purin bodies? Ever since the writings of Garrod it has been the custom of many physicians in treating gout to exclude fruits, potatoes and many other substances entirely free of purin. I do not say that potatoes and also fruits may not disagree with some gouty patients, but it is not due in any way to the fact that they are gouty but to other conditions having no relationship to the gout. I am glad to note that von Noorden in all of his diet lists gives fruits and all starchy matters freely to such patients. I have so often had patients tell me that they had been told to lessen their fruits and starchy matters in gout, that I thought this matter was of sufficient interest to call to your attention. Most of the so-called rheumatic conditions have no relationship to gout.

One word about the water cures in gout. Salines act in most cases much better than the alkaline waters with the exception of the alkaline waters containing lime. Lime combines with the phosphates in the intestine and holds back a large quantity of the phosphates, as insoluble calcium phosphate, and thereby the urine

largely contains the diphosphate of soda, which is a powerful solvent for urates, and in this way prevents uric acid deposits in the kidneys, ureter and bladder.

DIET IN NERVOUS DISORDERS (ABSTRACT).

By TOM A. WILLIAMS, M. B., C. M., Edin.,

Washington, D. C.

Nerve starvation is less common than nerve poisoning. The average diet of prosperous persons is deficient in carbohydrates and especially in the "bone of the wheat." The bad effect of a flesh diet on the growth of the thyroid gland and the advantages of oatmeal (Chalmers Watson), as well as the experimental production of beriberi by the removal of rice bran, proves the need of a substance contained in a part of the cereal usually rejected.

Calcium and the phosphates are essential also, as stabilizers of nerve function.

Psychic surroundings must be agreeable, without being too exciting.

Preparedness for assimilation is secured by proper oxidation and due intervals between meals.

Bolting is prevented by giving children firm foods, which demand proper insalivation.

Rigid formulas should be avoided, as they breed disgust; it is better to explain the principles to the patient.

In most conditions the aim is the optimum diet for a healthy person.

Dr. Williams then discussed the dietetic indications in epilepsy, for which a model diet was prescribed; arterio-sclerosis; drug addiction; periodic psychoses, upon which the favorable effects of proper dieting were illustrated by three cases; psychasthenia; nervous children; hysteria, with two illustrative cases, and finally hemicrania and other constitutional headaches, with the citation of two cases.

FEEDING IN INFANCY.

By FRANK LEECH, M. D.,

Washington, D. C.

There is no period in life when the importance of feeding is greater than in the first twelve months. In the ten minutes at my disposal this evening I shall not attempt to take up the feeding of special diseases of infancy, but try to point out the general principles of feeding in normal babies. We know that the elements of food—proteids, fats, carbohydrates, mineral salts and

water—are essential to the nutrition of the child as well as the adult. Now, if we determine the proper amount of each of these elements for each individual child and give them in the most assimilable form, then we have arrived at the height of perfection in regard to infant feeding. Unfortunately, after years of experimentation of a scientific character, we have not yet arrived at a point where we can say what is best in each individual case. I think we are all agreed as to the best methods of feeding of infants :

1. Breast feeding, either by the mother or by a wet nurse.
2. Mixed feeding. By breast and bottle.
3. Bottle or artificial feeding.

Breast feeding.—The milk from a mother's breast is by far the best food for an infant during the first year, if the mother is healthy. Infants thus fed are stronger and show a greater resistance to disease. While babies fed artificially do well in a certain percentage of cases and grow robust and strong, still the percentage is not nearly so great as with the breast babies, this being particularly true in the lower classes, where the mothers and those looking after the children do not have the time nor the intelligence to properly look after the bottle feeding.

Holt gives the following contra-indications to breast feeding :

1. Tuberculosis.
2. Serious complications, as nephritis, convulsions, hemorrhages, sepsis during pregnancy, and parturition.
3. Chorea and epilepsy.
4. Enfeebled condition of mother.
5. Where, with two previous nursings, the babies have not thrived.
6. Where the mother secretes no milk.

To insure good mother's milk it is well to watch the breasts during pregnancy. Nipples should be drawn out by traction regularly, or, if depressed, by pump.

Assuming that we have a healthy mother with a normal milk supply, we should by all means, urge that the baby be breast-fed. We all know how well our babies do under these conditions. However, it is important to do all in our power to continue the mother's milk in good condition, and to insure this we must see that the mother's health is properly looked after. The breasts and nipples must be kept clean ; her mental condition must not be disturbed, especially if she doubts her ability to nurse her infant. This is affected particularly by the weighing of the baby. The avoidance of shock, excitement, loss of sleep, and overwork are important.

Good nursing habits are important. Have the baby nursed regularly from the start. A satisfied appetite, dry napkins and a darkened room are essential to success.

The baby should be weighed each week for six months, and then at least twice monthly.

When the breast baby becomes fretful, colicky and cross we know that it is getting an insufficient or unsuitable supply of

milk. The stools must be watched and examined, if necessary. The mother's milk should be analyzed, if not agreeing with the child. If too rich, modify the mother's diet and give fresh air and exercise. If good, but deficient in quantity, give malt, cocoa and milk, with fresh air and exercise. If poor and deficient, do everything to improve the mother's condition. If no improvement is shown, it is usually well to try a modified cow's milk mixture, several times a day, and reduce the number of breast feedings. If, after a fair trial, the child does not improve, we must look for other means.

A wet nurse, *if possible*, should be obtained.

She should be healthy, and her milk must be shown to be good by examination. She should be between the ages of 20 and 35, and, if possible, a primipara whose own child has nursed successfully for at least one month. The same rules for the mother should apply to the wet nurse.

Mixed feeding.—I have already spoken about the advisability of piecing out the breast milk, under certain conditions, with modified cow's milk.

Where the breast milk is poor or scanty, where intervening illness of the mother has occurred, or where the mother is compelled to be away from the baby for any length of time, we find this a great help in the successful feeding of infants. Where it becomes necessary to eliminate breast milk, we are compelled to resort to some form of artificial food, and I believe all pediatricians are agreed that cow's milk, properly modified, is unquestionably the best food for constant use. I could spend the evening in talking on hand feeding and then not cover the subject.

To prescribe intelligently proper modification of cow's milk, it is of the first importance to know the composition of mother's milk, and then approach as near as possible in our artificial feeding.

The infant must be weighed regularly; see whether it regurgitates or vomits; whether colic occurs; and particularly the character and composition of the stools should be studied. If these things are watched carefully, we should have no difficulty in feeding normal infants if our milk mixtures are properly prepared.

The choice of raw, pasteurized or sterilized milk for our babies is a question that has and is giving rise to much discussion.

My personal opinion is that raw milk, granted that we can obtain it from non-tuberculous cows, which are milked under the best sanitary conditions; which is shown by frequent microscopical examinations to contain a low number of bacteria, and then properly modified and kept cool until fed, is by far the best artificial food. During the past year at the milk station at the Children's Hospital in this city, in my service, we have been using raw milk almost exclusively in feeding the babies, and our

results have been excellent. While these babies do not show a marked increase in weight over the pasteurized-fed babies, still they seem stronger, have a better color, and show more resistance.

Pasteurized milk, under certain conditions, such as questionable supply, high bacterial count, and where we are not sure the preparation will be properly looked after, is advisable.

The arguments raised against raw milk and in favor of pasteurized milk are principally that it is almost impossible to obtain clean raw milk, that it is the source of frequent cases of tuberculosis, and accountable for numerous epidemics of scarlet fever and typhoid fever. While it is true that these conditions have been traced to raw milk, I am firmly convinced that this objection could be eliminated if the source were properly controlled, and I further believe that if those who are lending their efforts to compulsory pasteurization of all milk would be as active in regard to getting clean raw milk, we should soon have no need for pasteurization.

Certainly the methods for commercially pasteurizing milk should be made uniform, and no milk allowed to be thus treated which is not fairly clean originally, as ordinary methods will not produce a wholesome food from a dirty source of supply. I am more firmly convinced than ever of the availability of raw milk, since I have seen what has been accomplished in a free distribution of the same. Furthermore, I have seen scurvy occur with pasteurized milk when prepared under the best conditions.

In regard to proprietary foods, I believe their use, except as a temporary feeding in sick babies, should not be considered. When properly modified with cow's milk I think they do well to make up the carbohydrates.

My experience, after a number of years devoted to this line of work, has led me to the foregoing conclusions.

DIET IN VASO-MOTOR DISTURBANCES OF THE UPPER AIR TRACT.

By CHARLES W. RICHARDSON, M. D.,

Washington, D. C.

In our investigation of the subject of vaso-motor disturbances of the upper air tract, over a period of years, we are more inclined than formerly to believe that these disturbances are almost always a general rather than a local change—in other words, we believe that the nasal mucosae only play a secondary part in the process, the primary condition being a general rather than a local one; the primal condition expending its force on the nervous system, which results in disturbing the stability of the bulbar center, with relaxation of the vaso-motor control of the mucosa of the

upper air tract. Whatever impression may be gained from the objective examination of the upper air tract, which varies greatly as to the deviation from the normal in the cases examined, there will be ever presented in the clinical history of all cases the same evidences of undue mental strain, however produced, with oft-times a corresponding disregard of many of the ordinary hygienic rules of healthful living. In another paper I have called attention to the experiments of Buch, made upon the abdominal sympathetic. In these investigations he called attention to the fact that the sympathetic nerves are non-sensitive only in the healthy state. When the nerve is stimulated for some time it becomes hyperæmic and extremely sensitive. Through this hypersensitive nerve various reflexes of a sensory or vaso-motor character could be produced. It seems plausible that, through continuous disturbances of the gastro-intestinal tract, more or less hyperæmia of the mesenteric, sympathetic, and ganglionic centers would be produced, resulting in disturbed innervation, and the transmission when overstimulated of impulses to the bulbar center.

The manner in which the irritant or toxic agent produces this action is a question of speculation at the present writing. Primarily the central nervous system and the sympathetic must be in a state of readiness to be excited and to respond tumultuously. We have learned through Max Buch's investigation that the sympathetic nerve, when stimulated, becomes hyperæmic and over-sensitive to impressions. It, therefore, seems plausible that biochemic changes produced in the blood act as a source of irritation in the bulbar center and the sympathetic nerves. When these changes are moderate in character, they simply keep the centers and nerves in a hyperæmic condition; when in excess, through increase in the irritants or toxin, above what the stability of the center or nerves can stand, they produce the well-known evidences of this condition. That digestive disturbances play an important, if not prevailing, rôle in the causation of the acute vaso-motor disturbances of the upper air tract, as well as those of the general mucous and cutaneous surface, is so well known as to hardly require mention—the angio-neurotic œdemas and hives, so-called. It is more difficult for the general medical mind to grasp the situation and importance that chronic disturbance of the gastro-intestinal tract plays in the pathology of the chronic vaso-motor disturbances as limited to the upper air tract. We have witnessed so often clinically the fact that after a patient who is overwrought in a nervous way ingests some particular article of food, eats too rapidly, or eats under great nervous excitement, and provokes therefrom an acute indigestion, develops an angio-neurotic œdema of the cutaneous surface here and there, or a similar condition in the nasal passages, pharynx or larynx. We have so frequently witnessed also the relief of these conditions through the removal of the offending material and the correction

of the diet that we are prepared to accept the disturbance of the digestive tract as the causative agent. How the sympathetic and bulbar center is irritated in these cases, as well as in the chronic cases, we are unable to state. Is the irritant the result of the alteration of some of the normal internal secretions, faulty metabolism, imperfect elimination, or production in excess of some normal excretion, the results of biochemic changes in the blood, or directly from the absorption of toxin generated in the gastrointestinal tract? The uncertainty of the action of the gastrointestinal tract in the chronic cases, and its remoteness is often so great that it frequently requires careful clinical interpretation in order to apprehend the relationship of cause and effect. There are, nevertheless, sufficient clinical data furnished by Stucky, Kyle and other investigators along this line to demonstrate that errors in diet by exciting disturbances of the gastric and intestinal tract, if persisted in through a period of time, will cause, eventually, this peculiar disturbance of the upper air tract. In a general way we find that the vaso-motor patients have wholesome appetites, eat too rapidly, and imperfectly masticate their food.

In this type of disorder the condition of the stomach and the intestinal tract must be thoroughly studied. The character of the food ingested and its applicability to the needs of the patient should be considered, for oftentimes we find that the limitations in this respect are exceeded or lessened. Most frequently we find that patients of rather sedentary habits, whose work is almost entirely of a mental character, partake too largely of proteids. It is also incumbent upon us to see that these patients take freely of water to aid elimination, and exercise more or less freely in the open air. As to particular lines of diet, each case must be studied individually and the diet prescribed which meets the individual indication.

Dr. T. C. Smith wished somebody would say something about the influence of the appetite in dietetics. He remarked that data upon this subject could be gotten from remote antiquity, and he quoted the Scriptures relating to the rebellion of the Israelites caused by the unvarying recurring diet of pheasants and manna, and of their intense desire for the cucumbers, melons, leeks, onions and garlic of Egypt.

Dr. W. P. Carr wished to speak upon one point, *i. e.*, when a diet is prescribed it does not always mean the same thing in different places and in different families. In this, so much depends on market conditions or upon the marketing ability of the family. The physician should bear in mind the quality of raw materials; this is less important in the case of carbohydrates, but the effect of cold-storage meats and fish would be of interest.

It is rather easy in a single disease to prescribe a diet, but when complications arise many puzzling questions have to be

answered ; for example, when, after a wasting infection, a highly nutritious diet is desirable, but an acute nephritis requires a very light diet. When considering the great variations of food under the same name and the great variations in the flora and fauna in different intestinal tracts, we are very far from any accuracy in our present modes of prescribing diet, but much can be done by intelligent attention to detail.

Dr. Ramsburgh said that in the Bureau of Animal Industry some very interesting experiments had recently been undertaken in which equal numbers of guinea pigs were fed on raw milk from tuberculin-tested cows and upon pasteurized milk from tuberculous cows ; after a time all the guinea pigs were inoculated with tubercle bacilli, and it was found that those that had been fed on pasteurized tuberculous milk lived longer than those fed on raw tuberculin-tested milk, from which the inference would be that the feeding of pasteurized tuberculous milk was of advantage to these guinea pigs in conferring a certain degree of immunity.

Dr. Prentiss Willson felt personally indebted to Dr. Roy for suggesting the instructive symposium. Dr. Willson would inquire what is the proper teaching as to water drinking at meals. Water drinking at meals has heretofore rather been frowned upon, but there seems now to be a tendency in the opposite direction. A recent editorial in the *Jour. A. M. A.* has emphasized this point. He recognized the value of the rules laid down by Dr. Leech contraindicating the breast feeding of infants, but recently had had a case in which an eight-pound baby had been delivered from a mother who suffered a series of violent eclamptic seizures ; the baby was breast-fed throughout its life ; both mother and child had been doing well to the present time.

Dr. Mallory said that Dr. Roy's plea for extreme accuracy in determining diet in terms of body weight was very important, as was well illustrated by a case in which an unaccountable increase of body weight was finally explained by the onset of edema. This phenomenon is commented on by Magnus-Levy, Strauss and others, who have called it the pre-edematous stage and attributed edema to salt retention in the body. Valuable work has been done in the matter of dividing food stuffs into two classes, viz : weak and strong stimulants to gastric secretion ; sugars, starches and fats are classed as weak stimulants ; animal products, as might be supposed, are strong stimulants. He would like to hear evidence as to the effect of the salt free diet upon other diseases and called attention to the need of a purin free diet in gout.

Dr. S. S. Adams wanted to protest against the remarks regarding certain experiments at the Bureau of Animal Industry on account of the hysterical movement discernible in the city to force the use of sterilized milk upon the people. This is simply an excuse to market rotten milk not fit for human consumption.

Dr. Adams protested against the attempt of hysterical laymen to force physicians to use commercially pasteurized milk. He also felt grateful for the insistence upon the necessity for individual treatment in dietetics. In an experience of many years, he had not yet found it necessary to blame the milk for the contraction of tuberculosis among children.

Dr. Prentiss Willson said in regard to commercially pasteurized milk that some of it is completely sterilized. He himself had treated last summer a typical case of scurvy in a child fed on the most prominently advertised brand of pasteurized milk in the city.

Dr. Chappell spoke in favor of pure raw milk. Pasteurization may be used to cover bad milk and may stand in the way of getting a pure milk supply.

Dr. Roy said in regard to the increase of body weight from water that Magnus-Levy, von Noorden and others also had called attention to salt retention as a cause of edema. As to the treatment of gout, this disease is supposed to be caused by the accumulation of the purin bodies in the blood: zantin, hypoxanthin, uric acid, etc. If the disease is due to these bodies the diet naturally should be composed of foods free of these purin-forming elements. But why then stop any other food elements? Why cut out fruits and potatoes? In his own opinion gout is due to retention in the blood of both exogenous and endogenous uric acid, and most careful urinalysis may be necessary to determine the question. von Noorden advises fruits at every meal for his gouty patients.

Dr. W. Gerry-Morgan said that Dr. Williams had struck a keynote in his remarks upon the habitual forced feeding of neurasthenia patients. The indiscriminate use of this form of treatment by physicians frequently sends patients to Dr. Morgan for the restoration of their digestions. Such patients are so low in vitality that they can not take proper care of the food given them. In his opinion water drinking adds both to the enjoyment and the digestibility of food. One rule is essential: never drink water when food is in the mouth. It seemed to him a good practice to allow the healthy man with good sense to follow the dictates of his own appetite in matters of diet, though this is not safe with a chronic dyspeptic. As to cold-storage foods he believes they greatly contribute to cause the many cases of intestinal putrefaction, especially those accompanied by auto-intoxication and indicanuria. As to the administration of sugar in hyperchlorhydra, he had proved fifteen years ago that sugar will lessen secretion and supply power to the body. It is the same way with fats.

Dr. Williams said that the proper interval between meals is important. The common idea is to feed the supposedly neurasthenic patient very often. Now this condition is too often due to a chronic intoxication of the nervous system, and frequent

feeding may accentuate this. Many neurasthenic patients may with advantage have the interval between food lengthened until there is an appearance of natural hunger.

Dr. Frank Leech was much pleased by the general protest against the commercial pasteurization of milk, and the experiments mentioned by Dr. Ramsburg do not prove anything as regards infant feeding. Dr. Leech believes that sterilization is what is actually done in commercial pasteurizing plants. He had met with a case of scurvy similar to that mentioned by Dr. Willson. Raw cow's milk is the ideal infant food when breast feeding is impossible. With regard to Dr. Willson's case of continued breast feeding in a case of eclampsia Dr. Leech himself had also had such a case. The rules given by him for weaning had been quoted from Holt, and are, of course, subject to exceptions.

MALFORMATIONS AND MONSTROSITIES IN THE ARMY MEDICAL MUSEUM.*

BY D. S. LAMB, A. M., M. D.,

Washington, D. C.

The words malformation, deformity and monster, are rather loosely used. As I understand these terms, the word malformation covers every faulty formation that is congenital; every deviation from the normal that occurs *before* birth. Malformation, anomaly and abnormality are therefore one and the same thing.

The word deformity, though often applied to malformations, seems to me should be limited to faulty formation acquired *after* birth.

The word monster or monstrosity is properly applied to the individual itself as an entirety; an individual that by reason of malformation is unable to live independently of the mother; or at least the malformation, if not actually preventing independent life, is an extreme condition, and causes more or less interference with life's functions.

This paper will not undertake to discuss the causes of malformations, although brief statements of probable causes will occasionally be made. It may, however, be said that it is probable that most malformations are caused by some *extraneous* interference with development. The laws to which normal development is due, are fairly well known; and it is easy to understand that any interference with the action of these laws must inevitably be followed by deviation from the normal structure.

*Read before the Medical Society of the District of Columbia February 15, 1911. Reprinted, with a few alterations, from *The Military Surgeon* October, 1911, p. 374.

As persons of scientific mind we cannot, of course, believe in any providential or demoniac interference. The question is simply one of law; one law predominating over another. All animals, whether mammals, birds, fishes, etc., show malformations and they show the same kind of malformations. The vegetable kingdom is not exempt. In the animal kingdom, at least, we find many instances in which a condition occurs in one animal, which is abnormal in that particular animal, but is normal in some lower form. In other words, during the development of an animal a stage is reached which normally should be only temporary, which in another animal, however, is permanent, and which, therefore, is anomalous if it becomes permanent in the former. Such instances are generally called reversions.

I might quote here from Mall's "Study of the Causes Underlying the Origin of Human Monsters," Philadelphia, 1908, page 5, where he says: "It is my purpose to demonstrate that all monsters are produced by external influences upon normal ova, which affect the nutrition of the embryos, due to faulty implantation of the ovum." Mall's article covers 361 pages. Another article well worth reading is that of H. H. Wilder, on the "Morphology of Cosmobia; Speculations Concerning the Significance of Certain Types of Monsters," (*Amer. Jour. Anat.*, 1908, VIII, pages 357 to 440).

Malformations may be classed in different ways; from different points of view. We have single and double monsters; double monsters being those in which two individuals are joined together. Malformations may be by defect or by increase, in volume, in number, form, color, structure, or in disposition. Some malformations are inherited; this is especially the case in polydactylism, where the parents and children also show six fingers or six toes, or both.

As a result of experiments on the lower animals, birds and fishes more especially, malformations have been repeatedly produced, although we cannot forecast what particular kind of malformation will follow a particular experiment.

My purpose in this paper is to present for consideration a summary of the malformations assembled in the Army Medical Museum. It will be interesting to know that there is so large a collection of malformations in a museum in this city, nearly 400 specimens, and that about one-third of these have been contributed by members of the Medical Society of the District of Columbia. These specimens taken together include nearly all possible forms. They are arranged according to the well recognized classification of Foerster as partly modified by Hirst and Piersol.

The Museum has not the good fortune to possess a specimen of that rare condition known as *situs transversus*; in which the organs of the thorax or abdomen, or both, are transposed from

the right to the left side. Some of us recall a specimen shown to the Society some years ago by Dr. I. S. Blackburn of the Government Hospital for the Insane, and I believe that another specimen of the same kind has also been shown, but by whom I have forgotten.

The Museum has two specimens that were donated under the impression that they were cases of *hermaphroditism*. In both, however, the testes are present, and the ovaries are absent. In the human subject it is still doubtful whether a case of true hermaphroditism has yet been discovered; this would mean two testicles and two ovaries, as well as the other genitals of both sexes in one individual. A few cases have been recorded in which one testicle was found on one side and an ovary on the other and the other genitals were partly male and partly female. This condition has been termed *lateral hermaphroditism*. And the name *pseudo-hermaphroditism* has been applied to those cases in which the sexual glands are either male or female while the remaining genitals are of a mixed character.

The two specimens in the Museum are briefly as follows: One is from a pig; this was shown to this Society in 1905. The animal was about ten months old; the testicles are present; the external genitals are female, but there is no vagina or uterus.

The other specimen is from a man. The case was published (*Amer. Jour. Med. Sci.*, 1853, page 63) as a case of true hermaphroditism. Apparently the first person to express a doubt of this diagnosis was Dr. J. B. S. Jackson, of Boston, about 1856. The case was discussed in Wharton and Stille's *Jurisprudence*. Finally the specimen was sent to the Museum, where it was examined by Dr. J. J. Woodward, one of the Curators, and by Dr. E. M. Schaeffer, an assistant, who found that there were two undescended testicles, but that what had been called ovaries did not contain any ovarian tissue. What attracted particular attention during life was that the man was said to menstruate every month through the urethra. It was during one of these periods that he died of cerebral congestion. The vasa deferentia as usual opened into the prostatic urethra.

I pass next to a class of monsters in which the malformation is in the limbs. The following specimens are in a class called *ectromelus*; limbs imperfectly formed. Under this head are a number of subdivisions. One is *phocomelus*, having limbs like a seal; that is the hands and feet are of normal size while the rest of the limb is shortened, suggesting the flippers of a seal. The Museum has two specimens, both male fetuses at or near term. One has also an inguinal hernia; the other has six digits on each hand and foot, several accessory spleens, cysts of the mesentery, undescended testicles and hypertrophied kidneys. Such a multiplicity of malformations is often found in the same individual.

Another malformation is called *symelus* or *sympodia*, in which



DICEPHALUS.



CYCLOCEPHALUS.



SYMELUS, OR SYMPODIA.

the lower limbs are more or less united together. The pelvis in these cases is imperfect; the anus and urethra are not patulous; the two femurs are united by the external condyles and the legs by the fibulæ, so that the limbs are rotated backwards 180 degrees. There may be two feet or only one fused foot, or none at all. The Museum has a specimen, in which the feet are well formed. The mother was said to have had hysterical convulsions for two years before the birth of the infant. What, if anything, this had to do with the malformation is, of course, conjectural. In another case there is only one femur; a rudimentary piece of bone represents the two tibiæ; no sign of foot, genitals, urethra or anus. This form is known as *sirenomelus*, and, in my opinion, some such specimen gave origin to the siren of mythology.

There are also specimens from which one or more limbs are absent; the arms in three; the legs in one. Two other specimens show rudimentary lower limbs; two the hands and feet, and eleven the entire absence of digits. Also a specimen of rotation of limbs, one of congenital overriding toes, in which both parents had the same anomaly; and two specimens of kittens born without tails.

Another class of malformations is known as *celosoma*; the condition of eventration or ectopia. In these cases the front of the body more or less fails to close and retains to some extent its early embryonic condition. There may be simply a small opening, usually at the umbilicus, and very likely accompanied by a hernia of the intestine, an umbilical hernia, or the entire front of the body may be open, either in the median line or laterally and usually with the viscera exposed or actually protruding. Many of these cases have other malformations in addition to the eventration. According to the extent of the failure to close, appropriate terms are applied. The Museum has a number of specimens. In one the fissure involves both thorax and abdomen, with more or less protrusion of the viscera; there is also a curvature of the spine, harelip, absence of left shoulder girdle and bilateral club foot. In another case the fissure is lateral on the left side; the viscera are imperfectly developed, there is also right side club foot, synostosis of the ribs, and hydrocephalus. In a third there is also anencephalus, spina bifida the entire length of spinal column, harelip and cleft palate.

In the following cases the abdominal wall only was open; the viscera more or less protruded. In one there is also kyphosis, spinal meningocele, atresia of the anus and urethra, absence of gall-bladder and left kidney; and the heart was enlarged to twice its normal size. In another case the amniotic membrane was adherent to the peritoneum and there were other peritoneal adhesions, and also spina bifida. In a third the amnion and peritoneum are fused together, the external genitals are represented by a small elevation and there is marked lordosis of the spine, the heels

touching the back of the head. In a fourth the amnion and peritoneum are adherent together, and there is also spina bifida and an absence of the external genitals. I may state here that according to some writers this malformation is caused by the amnioperitoneal adhesions that are so distinct in these three cases. In a fifth specimen the diaphragm is defective, the testicles undescended. In a sixth there is lateral curvature of the spine, dislocation of both hip joints, club-foot, absence of sexual organs, and the colon ends in a cul-de-sac. In a seventh there is also a rudimentary pelvis, only one lower limb present, the genitals absent. In an eighth the umbilical cord is dilated into a sac two inches in diameter and contained the greater part of the intestines; there was also double harelip, cleft palate, a diverticulum of the ileum, and a sixth digit on each hand and foot. In this case the attending physician inadvertently tied off the sac and its intestinal contents, and the infant, of course, died.

There are three specimens of celosoma involving the lower part of the abdomen, with extrophy of the bladder; all the patients were women. In one the woman was 35 years old; the only history is that she died in the Baltimore almshouse in 1861. Another case is a model of the celebrated case operated on by Daniel Ayres of Brooklyn (*Amer. Med. Gazette*, 1859, X, pp. 81-2). The patient was 28 years old and had borne a child. The operation was successful in securing a bladder that retained urine. The third case was shown to this Society in 1896 by Dr. Chappell. The woman was 45 years old. It is said that as an infant she was washed and dressed by an aunt of hers who was pregnant at the time; this aunt at the end of her term gave birth to a child with similar malformation; a remarkable coincidence. The case was published (*National Med. Rev.*, 1896, VI, page 94). In this case as in most of them, the pubic bones were separated by an interval; in this case $3\frac{1}{2}$ inches; there was also bilateral hydronephrosis.

As the anterior part of the body may fail to close so also may the skull and spinal canal. This condition when complete, that is involving both skull and spinal canal, is called *cranio-rachischisis*; when incomplete is known by some name that indicates the particular condition. The failure of the cavity to close is attended with a corresponding failure in the development of the contents, the brain or spinal cord. In most cases in which the vault of the skull is not closed, the cervical part of the spine also shows the same malformation; the cervical vertebrae are more or less fused together, giving the neck an appearance of shortness, the head lying close to the shoulders. In nearly all these cases, besides the main malformation, there are minor ones, especially cleft palate and clubfoot. For some unknown reason the malformation is found in the female subject about twice as often as in the male.

Some specimens consist only of the skull and therefore we know nothing about the brain or the rest of the body; in one of

these the history states that there was a rudimentary brain. In other cases the specimen consists of the entire head, but the rest of the body is absent. In all these there is a mass that suggests a rudimentary brain. One fetus at term breathed for a few minutes; another infant lived four months, a period almost unprecedented.

When the skull alone is involved, and not the spine, the terms used indicate the condition of the brain; *anencephalus*, *pseudencephalus*, *exencephalus*.

Other specimens show the malformation in both the head and spine. In five of these the cervical spine is open. In one there is a rudimentary brain; and in another a good-sized brain lies on the cervical spine. In two cases there is harelip and in a third harelip and cleft palate. One individual lived a few minutes; another lived 23 hours; this was an iguana.

Still other specimens show the skull open above and spine open at the back nearly or quite all the way down. This malformation also has been attributed by some writers to adhesion of the amnion to the fetus. One specimen is from a kitten. All but two are from fetuses not arrived at term. In one there is also some fusion of ribs and the uvula is bifid. In five specimens there was a rudimentary brain. In three the history stated that there was an excessive quantity of amniotic fluid. One was from the third pregnancy and the same mother in her first pregnancy gave birth to a similar monster, also with hydramnios. The second pregnancy ended with the birth of a child that was apparently normal but could not urinate and died on the third day. One specimen shows the skull unclosed but with a large vascular mass, probably brain, to which the amniotic membrane is attached and the head was inclined to one side; there was also a small spina bifida, harelip, malformed upper limb, etc. This case was published (*National Med. Rev.*, 1899, page 458). The cause of the failure of the skull to close is often attributed to hydrocephalus occurring early in embryonic life; if it occurs after the fourth week a protrusion between the bones of the cranial vault is more likely to occur; this protrusion consists of a membranous sac containing fluid, or fluid with brain tissue; a meningocele or encephalocele. Specimens of this kind as also specimens of hydrocephalus have therefore been placed among the malformations, where so far as known the hydrocephalus belonged to the fetal period. I might mention here that in the *Brit. Med. Jour.* for July, 23, 1910, is the report of a case in which the woman after giving birth to a normal infant at the end of her first pregnancy, had an anencephalic fetus in her second and third, and an encephalocele in the fourth. What may happen in future pregnancies it will be interesting to know.

Of the cases of hydrocephalus three were from calves. In one the mother died in labor; the calf had but little brain tissue and the dura mater was closely adherent to the scalp. In another the

calf lived two days. In a third several days; this case was published (*National Med. Rev.*, 1899, page 457).

Some specimens are from fetuses at or nearly at term. In one the base of the brain only remained. In another a rupture of the uterus of the mother occurred during labor. In a third the infant had to be turned to be delivered, the humerus and clavicle being broken in the operation. In a fourth the infant lived 15 hours and there was some malformation of the limbs. In a fifth the brain was removed to deliver the fetus, the diameter of whose head was 18 inches. The mother had had two malformed infants, both stillborn.

The following specimens were from older children, but probably in all of these the hydrocephalus preceded birth. In one the infant died in convulsions on the 14th day; but little of the brain besides the base was found. This case was published (*National Med. Rev.*, 1879, I, page 158).

In another specimen the infant died in convulsions on the 51st day; there was only a shell of brain tissue and a spina bifida. In a third the infant was 18 months old at death, had epileptiform convulsions from birth, never walked or talked, the brain was much shrunken and sclerosed. It is said that the father had had "fits." In a fourth the boy was 9 years old; the hydrocephalus was certainly congenital; he had an acute meningitis also when five years old, after which he remained in bed the rest of his life; was unable to raise his head; was paralyzed in both left limbs, and the right lower limb; had an enormous appetite; after his sixth year his speech became unintelligible and he was both deaf and blind. At the autopsy five pints of fluid were found in the skull.

Three specimens are from adults. One from a man 21 years old who died of general tuberculosis; about 2 pints of serum were found in the skull. A second is a plaster cast of an enormous hydrocephalic head. A third specimen is from an Indian woman 85 years old, a dwarf; the brain mass weighed 36 ozs.; she also had kyphosis and caries of thoracic vertebrae.

In one specimen already mentioned as a case of celosoma, there is also hydrocephalus; and in another case yet to be mentioned in which there is spina bifida, there is also hydrocephalus; the fetus presented by the breech and died before the head could be delivered.

There are 5 specimens of *meningocoele*, all of them through the occipital bone. Three were in fetuses at term. Besides these was one in which the infant lived two days; the case was published (*National Med. Rev.*, March, 1899, page 457). In another case the infant lived two weeks.

In 4 cases the *meningocoele* contained brain matter besides the serum; therefore a *meningo-encephalocoele*; called also *hydrencephalocoele*. In these cases also, the tumor, was posterior. In one the infant lived one hour; this child had also a hypertrophied

prepuce. Another was one of twins, both female, with separate placentas; one was normal, a breech presentation; the other was turned and delivered and died on the third day.

In one specimen the tumor presented at the root of the nose; a Filipino infant that lived one month.

The specimens of *spina bifida* include those also of *hydrorachis* or watery distension of spinal membranes, similar to hydrocephalus. In one case the malformation involves the bones in the lumbar region; there is also double harelip and clubfoot. The infant died in convulsions 24 hours after birth, breech presentation; the sac of the hydrorachis ruptured during the labor. Another specimen includes the sac and more or less adjacent soft parts; was published (*National Med. Rev.*, 1897, VII, page 89). A third case is a four months' fetus. In a fourth there is also double clubfoot. The attending physician misunderstood the spinal malformation and applied a poultice to the tumor; the infant died in convulsions on the third day. In a fifth there is also hydrocephalus; a case already mentioned above; the infant lived 51 days; died in convulsions. A sixth lived two months; on the 27th and 28th days ligatures were applied to the base of the sac; 6 days afterwards they were removed and quills were substituted, held in place by adhesive plaster; 5 days later the sac was punctured and the fluid was withdrawn; the fluid continued to ooze away; convulsions set in and the infant died. In a seventh the infant had cut three teeth; never had convulsions, but the sac ruptured and death occurred three days afterwards.

There is a class of malformations known as *cyclops*. The story of the mythological cyclops with its one eye in the middle of the face, is well known to us all and in my opinion originated in the fancy of the ancients through seeing these malformations, which they deified. The eye is not always single; there are all degrees of approximation and fusion; the bones that separate the orbits are wanting. Of course the nose is absent or there is only an apology for one in the shape of a tag of skin at the forehead. The explanation of the malformation is partly in the failure of the fronto-nasal process of embryonic life to develop and unite as it should do with the maxillary processes. If this failure involves the structure of the face lower down, then the lower jaw is affected, is either rudimentary or entirely absent. In all these cases the ears are brought near each other and towards the lower part of the face. If the fronto-nasal process is not developed at all, the frontal lobes of the brain are also undeveloped. In many of these cases also there are other malformations, usually of minor degree. The technical term is *cyclocephalus*, and there are subdivisions according to the degree of malformation.

A number of papers have been published in the last few years giving the results of experiments, especially upon birds and fishes, in which malformations were produced; the latest that I have

seen, is that of Stockard (*Amer. Jour. Anatomy*, July, 1910), who experimented especially with the minnow, by using weak solutions of alcohol, chloroform, chloretone, ether, etc. He was especially interested in the effects of these applications on the development of the optical apparatus. He found as high as 98 per cent. of malformations of this apparatus in his alcohol experiments; and found especially the cyclops. His conclusion was that such malformations are caused by external conditions and he questions the correctness of H. H. Wilder's germinal hypothesis.

Three specimens in the Museum, consist only of the skull, the rest of the body being absent; in one the lower jaw is quite rudimentary. A fourth is the skull of a colt and separately the soft parts of the head; the two eyes are distinct but the pupils almost touch each other. A fifth is the skull of a lamb; the lower jaw is quite rudimentary. In a sixth the corresponding soft parts show the eyes separated by an interval; the ears are approximated and beneath the ears is an opening into the pharynx. A seventh is the skull of an infant; the left auditory meatus is undeveloped. An eighth is the corresponding soft parts; it is difficult to make out the eye. There are three skeletons of pigs, in which, besides the cyclops, there are minor malformations. In the skeleton of a young dog, the lower jaw is absent. A specimen from a new-born infant shows a single central eye; the ears are low down at the sides. Another is the head of a fetal calf; the orbits and eyes are represented only by a pimple; the nostrils impervious. In a third, the head of a new-born infant, the eye is indistinct. A fourth is the head of a new-born colt; the two pupils are approximated. This animal was slaughtered by very stupidly shooting it in the head. The lacerated brain shows a few convolutions above the rhomboid fossa of the 4th ventricle.

There are three female fetuses and one male. In one, a 7 months' fetus, the two eyes are side by side, the lower jaw entirely absent; the mouth is a mere slit. It is said that the mother, one month after conception, looked through a kaleidoscope. Perhaps it is best that pregnant women should not look through kaleidoscopes. In another case, a fetus at term, there is apparently only a single eye; this fetus has 6 digits on each hand and foot. This was the ninth child, all the previous children were normal. In a third, a fetus at term, there are two eyes. In the fourth, a fetus at term, besides the cyclops condition the urinary bladder is enormously dilated, the urethra not patulous; there is also a sixth finger on the right hand. The mother had had eight well-formed children. In another specimen, a duckling 4 days old, there is apparently a single eye; it is said that the animal was able to swallow a little. In a new-born puppy, the only parts of the head present are the tongue and pharynx; the head is a round ball; the animal, of course, could not suck or breathe.

There is a malformation known as *omphalosite*. In this case

there are two fetuses in the uterus, one of which receives its nourishing blood not directly from the placenta, but from the other fetus through anastomoses of the placental and umbilical vessels. Of course after the birth of the two fetuses one of them is unable to live independently. There are three specimens in the Museum. In one, from a pregnancy of about 7 months, one fetus lived about 10 minutes, was well formed; the other showed an imperfect head, without any nose, eyes, ears or palate, and with imperfect limbs, an umbilical hernia, and a great increase of subcutaneous connective tissue. In another case, a pregnancy of about the third month, one fetus was normal except for the union of the digits of one foot; the other fetus shows the entire absence of the head, neck and upper limbs, and the lower limbs are imperfectly developed. In a third the omphalosite weighed $2\frac{1}{2}$ lbs.; the autosite $6\frac{1}{2}$ lbs.; both were born at term; the autosite lived and grew up; the omphalosite shows an increase of connective tissue, a small skull, rudimentary upper limbs, persistence of fetal facial processes, ears simply tags of skin, small thorax; absence of heart; lungs rudimentary; absence of pharynx, oesophagus, diaphragm, stomach, duodenum, liver, and pancreas; the intestine ends blindly; the external genitals well developed; kidneys not made out; club feet, and anomalies of toes. What more could anybody ask for?

The word *hemitera* means literally half a monster and is applied to malformations other than those we have considered; cases in which the degree of malformation is not considered enough to apply the word *tera* or monster.

The subdivisions of the *hemiterata* are according to whether the malformation is one of size, of shape, of number, of misplacement, etc. The Museum has a large number of these, some of which have already been mentioned in describing the malformations of greater importance. It will be observed as already stated that the more important malformations are very frequently accompanied by those of minor degree; sometimes many forms in the same individual.

Although I have called these malformations of minor degree, they are only so when compared with the more marked forms previously described. Some of them are of supreme importance; because of them the independent existence of the individual after birth is nearly, if not quite, impossible.

Beginning with the alimentary canal, first may be mentioned the bifid uvula, two specimens; several instances of the same have already been given in connection with other autosite malformations. This form belongs to the same class as harelip and cleft palate, which are relatively common, at least harelip; but few specimens of it have been preserved; five of harelip and 12 of cleft palate. These malformations are, however, seen also in some other specimens already described. The results of operations are seen in some of the specimens. The explanation of

this malformation is in the failure of the right and left maxillary processes of fetal life to meet and unite; the corresponding soft parts also.

Absence of pharynx has been mentioned in connection with other malformations.

In one case, the oesophagus ended in a blind sac opposite the tracheal bifurcation; the trachea itself being continued downward into the lower part of the oesophagus; an error of development. The infant lived eleven days and, of course, starved to death. It would be an interesting question whether surgery has yet reached a point at which a restorative operation could be done in such a case.

The Museum has but few anomalies of the stomach. There is an hour-glass contraction in one case, a fetus; and in another a small diverticulum that is probably congenital. There is one case of congenital pyloric hypertrophy of which the infant died on the 22d day; and one case of atresia of the pylorus in a fetus.

Malformations of the intestine are numerous. Diverticula of the small intestine are shown in the following: one in the duodenum; seven of the so-called Meckel diverticula, named after Meckel because he was the first to particularly describe them; they are the persistent omphalo-mesenteric ducts as found in the early embryonic stage, say before the 6th week. Other diverticula, probably not the Meckel form; in one case, the diverticulum was attached by a cord to the mesentery, and through this loop coils of ileum had become strangulated and caused death. One case is shown of diverticulum of the appendix. There are also two specimens of diverticula of the colon. This, however, is not a very rare condition, but at the usual post-mortem examination it is very likely to be overlooked. In one case the diverticulum became gangrenous, although an operation was done for relief.

In four specimens the intestines end in a blind sac; and there are also other malformations. This condition has been previously mentioned in connection with other specimens described. In all of these cases an operation would hardly be expected to give relief.

The anal opening failed to be formed in six specimens, two of which were operated on but without success; one infant lived 9 days. One case that was not operated on lived ten days.

Absence of the vermiform appendix appears to be rare; the Museum has one specimen that, however, is somewhat doubtful.

The liver often shows abnormal furrows and sometimes fissures, but they are of slight, if any, importance, and the specimens are seldom preserved. The Museum has two specimens of multiple cysts of the liver; the condition probably occurred before birth. One was published (*Nat. Med. Rev.*, 1897, VI, p. 224). Absence of the gallbladder is rare; it is shown in one

specimen. In some mammals, as in the horse, the gallbladder is normally absent.

The spleen as a part of the portal system may be mentioned here. The most common anomaly is lobulation, which, for the most part, is simply a persistence of the fetal condition. Two specimens only have been preserved. No importance attaches to the condition. The presence of additional spleens besides the main organ is of more interest, because these accessory spleens are often affected with the same disease as the main organ. There may be but one or there may be many additional spleens; I have seen as many as eight in one case. They seem to be especially common in the colored race. The Museum has preserved 15 specimens. They are most commonly found in the hilum of the main organ.

I do not think that I have ever seen a case of entire absence of the spleen.

The Museum has an interesting series of specimens showing malformations of the heart. The bifid apex, normally seen in some lower animals, as the ox, is shown in two specimens from the human subject.

A patulous foramen ovale is not so very uncommonly found after birth, and in many cases gives no trouble because the valve-like membrane effectually prevents admixture of the blood of the two auricles. The Museum has several specimens besides those that show also other and major malformations. One from an infant 8 days old, that was cyanosed, had convulsions and refused to nurse; another from a soldier, no history of symptoms due to patulous foramen. In a third case the infant lived 54 hours; there were other malformations. In a fourth, from a child, there is no history. In a fifth, from a man age 66, no symptoms were ascribed to the foramen.

There is one specimen of congenital narrowness of the tricuspid opening in a man age 34 who died of valvular disease apparently from gonorrhoeal rheumatism; no symptoms attributed to the malformation.

Anomalies of the pulmonary valve are shown in several specimens. In one there are only two leaflets instead of the normal three; from a man age 66. In another the valve had four leaflets; from a girl 12 years old. In two specimens the valve consists of a dome-shaped membrane with a small central opening; the obstruction to the flow of blood, of course, caused marked enlargement of the right side of the heart. One was from a man, age 24, no history; the other from a girl 5 years old, who died of pericarditis; no symptoms attributed to the malformation (WASH. MED. ANNALS, 1902, page 307).

In two cases the aortic valve consists of two instead of three leaflets; in one, a man age 26, both coronary arteries arise behind

one leaflet; the other was in a man age 33; in neither case were any symptoms ascribed to the anomaly.

Several specimens show the persistence of the opening between the two ventricles that should be closed by about the 6th week of fetal life. One is from a child, the other from an adult; no history in either case of symptoms due to the anomaly. In a third case, a girl 6 years old, there are other cardiac anomalies.

Two specimens show the origin of the aorta from the right ventricle and the pulmonary artery from the left. In one, from a child, age not given and no history, the right wall of the heart is much thicker than the left. In the other, from a girl 6 years old, the origin of the pulmonary artery is blind; the girl was cyanosed (*Archiv. Pediatrics*, 1895, XII, page 828).

One specimen is a trilocular heart; the right ventricle is represented by a minute cul-de-sac and the pulmonary artery arises blindly; foramen ovale patulous. The cyanosed infant lived 5½ hours; respiration was difficult.

In another case, a 7 months' fetus, the right lung is absent; the left pulmonary vein opens into the right auricle, no vessels into the left auricle, and there is stenosis of the trachea, pylorus and rectum.

Anomalous origin and distribution of arteries and veins is so common that the Museum has preserved but few specimens. In many of the malformations already described these anomalies are present. The following specimens may be mentioned: One shows stenosis of the aorta near the origin of the left subclavian artery and the ductus arteriosus is still patulous; from an infant 6 months old that died of pneumonia; the heart was hypertrophied. Another specimen shows the right subclavian artery arising from the descending part of the aortic arch and passing to reach the right side behind the trachea and oesophagus; from an old woman (*WASH. MED. ANNALS*, 1909, page 292).

Congenital occlusion and dilatation of lymph channels is shown in one specimen, from an infant 13 months old. This case was the basis of the famous paper by Dr. Busey on this subject (*Amer. Jour. Obstetrics*, 1877, X, page 8).

The Urinary Organs.—Absence of both kidneys is found only in fetuses that show other important malformations. There is one such specimen in the Museum. Such fetuses are, of course, unable to live after removal from the uterus.

The absence of one kidney, which curiously enough occurs three times on the left side to once on the right, is compensated for by enlargement of the other kidney and is therefore entirely consistent with life. The kidney that is present does the work of two. In one specimen the right kidney is absent; the left, much enlarged, contained abscesses from which the patient died. In two others, from adults, and a fourth, from a six months' fetus, the left was absent.

Lobulation of the kidney like that of the spleen is simply a persistence of the fetal stage and is of no importance. The Museum has preserved only three specimens, all from adults.

Movable and floating kidneys have not been preserved. Of more interest not clinically but pathologically is the displaced kidney. In the Museum are several specimens, all from adults. One, the right kidney, was situated over the second lumbar vertebra; a second, the left kidney, is just below the aortic bifurcation; in a third the left kidney was at the brim of the pelvis. In a fourth the left kidney was in the right iliac fossa and was smaller than the right, which was in its normal position. In all these cases the history fails to suggest any disturbances arising from the displacement although we can conceive that some trouble might occur.

The Museum has one specimen that may be called a double kidney, because the left kidney is subdivided anteriorly by a transverse fissure, and has a double pelvis that communicates with two beginnings of a common ureter.

It is not uncommon to find two ureters from one kidney; but usually the two join together before arriving at the bladder. The Museum has preserved seven specimens; the ureters unite near the bladder. In another case the ureters open separately into the bladder. Apparently no trouble arose from this anomaly, in any of these cases. Cohesion of the two kidneys, commonly known as fused or horseshoe kidney, because of the shape, while not very uncommon, has never been met with by me in my post-mortem work, covering now a period of over 45 years. There are, however, 14 specimens in the Museum, all but one of them from adults. The histories of these cases do not mention any functional disturbance arising from the anomaly. The cohesion usually occurs at the lower part of the kidneys, which shows therefore the horseshoe curve with its convexity downward. The coherent kidneys are usually also in the midline, lying over the lower lumbar vertebrae; two lay in the right lumbar region; one in the left. One case was published (*Nat. Med. Rev.*, August, 1899, page 158).

The Museum contains 38 specimens showing cysts of the kidney. Some of these are congenital, others were acquired after birth. In 14 cases both kidneys are filled with a multitude of cysts varying in size; and the condition is probably congenital. In 8 cases there was one large solitary cyst in one kidney or one in each kidney; one is from a boy 2 years old; a second is from an 8 months' fetus; the case was published (*Jour. Amer. Med. Assn.*, 1903, XLI, page 1537); two specimens are from pigs killed soon after birth.

The urinary bladder is found rudimentary in one case in which the kidneys and ureters are absent. The bladder itself is absent in another case in which there are other malformations. In a third,

the urethra is not patulous, and as a result the bladder is dilated; a six months' fetus. In a fourth the ureters and kidneys are absent. In a fifth the ureter is obstructed by valvular folds that caused congenital hydronephrosis. This case was published (WASH. MED. ANNALS, 1905, IV, page 48).

The Male Genitals.—There is one specimen of hypertrophy of the prepuce in which there was also hydrencephalocele. In another case a fetus at term, both testes are absent. Four specimens show the testes undescended. In one, a newborn infant, they are still in the abdomen. In a second, the left testis is still in its embryonic position. In a third, a man 20 years old, the right testis was in the groin and was removed by operation. In a fourth, both testes were ectopic; from a dog. In a fifth, the case of so-called hermaphroditism in the human subject already mentioned, the testes are undescended. There is one specimen of dermoid cyst of the testicle removed by operation from a boy 2 years old. It contained bone, teeth, hair and sebaceous matter. In this case the other testicle which was undescended, came down into its normal place after the operation.

The uterus is rudimentary and there are rudimentary ovaries in one case; a woman aged 29, married but without children; menstruated only a few times. One specimen is a cordiform uterus, that is there is a partial failure of the two Müllerian ducts to unite; from an adult. In another case a newborn infant showed absence of vagina. The ovaries are rudimentary, as stated, in one case and absent in another, a woman age 50.

Organs of Respiration.—Several cases of imperfectly developed lung have already been mentioned in connection with other malformations. Unusual lobation of the lungs is rather common and clinically of no particular interest. The Museum possesses no malformations of the larynx, but has a specimen of congenital communication between the trachea and oesophagus in a 7-weeks-old infant, in which death appeared to be caused by the milk getting into the trachea and setting up a pneumonia (*Philadelphia Med. Times*, 1872-3, III, p. 705); and one of atresia of trachea, in a 7 months' fetus. Under "oesophagus" has already been mentioned a case of communication between the trachea and lower segment of the oesophagus.

Nervous System.—There are three specimens of porencephalus; a condition in which the brain is defective on one or both sides, some portion not developed at all, and its place filled with fluid. In one case this absence was on the left side; a man, age 60, who died of an abscess of the other cerebral hemisphere. In a second case, the absence was also on the left side; a boy 4 years old. When one year old he had some disturbance of motion (*National Med. Rev.*, July 1, 1899, page 37). In a third case, a girl 11 years old, who was never able to walk or even stand or

see, and her hearing was poor (WASH. MED. ANNALS, 1905, page 198). These two specimens were contributed by Dr. Acker.

The Museum has no specimens of malformation of the eye except those of cyclops already mentioned. Of the external ear there are two specimens. Peculiarities of the external ear are, however, quite common. The same may be said of deflections of the nasal septum, which are present in about 25 per cent. of human noses.

I may add to what has been said that there is a model of a woman who was but two feet in height.

Abnormalities of bone are so common that but few specimens as such have been preserved; many other specimens, however, show these abnormalities, but have been preserved for other reasons. The ridges, foramina, canals, sutures, etc., vary much in size and in other particulars. Several specimens show the metopic suture, that is the fetal frontal suture that sometimes persists beyond the usual age of closing, about the second year.

One specimen shows a multiplicity of centers of ossification, such as is often found in hydrocephalic skulls. Another shows premature closing of sutures with corresponding deformity. Several specimens show a third occipital condyle.

In some cases the separate parts of the spinal column are congenitally united. In one specimen the atlas and occipital bone, and in another, the last lumbar and first sacral vertebrae. Several specimens show congenital spinal curvatures.

Additional ribs are sometimes found in the cervical or lumbar region. There are four specimens of cervical ribs in the Museum. Bifurcation of ribs, more especially at the anterior end, are seen, and bony union of adjoining ribs to each other.

The sternum often shows the direct attachment of the 8th costal cartilage, usually on the right side, often on both, occasionally only on the left, as in a specimen from a left-handed person. Bifid ensiform cartilage is often seen, and a foramen in the middle segment of the sternum. Sometimes a fissure involves more or less of the length of the sternum, the remains of an embryonic stage; the Museum has the specimen from the famous case of Dr. Groux, of Brooklyn (*Annals Anat. and Surg. Society of Brooklyn*, 1878, I, page 7). The patient was shown to the Medical Society of the District of Columbia Feb. 5, 1859. This fact is mentioned on page 59 of the History of the Society.

Perforation of the lower end of the humerus causing a direct opening of the olecranon and coronoid fossae into each other, is especially common in the humeri of the sedentary Indians of the southwest; and is the normal condition in many animals, as in the dog. What is called *pilasterism* of the femur and *platycnemism* of the tibia, the former a peculiar heaping up of bone, the latter a lateral flattening, are often found in the Mound Indians. The Museum has preserved a number of specimens. The only speci-

men of bilateral congenital dislocation of the femur in the Museum is from an old Indian cemetery.

The Museum has many specimens of double or composite monsters, by which is meant some degree of duplication in the main regions of the body. Those that show doubling in the upper half of the body are called *terata katadidyma*; those that show duplication in the lower half, *terata anadidyma*; and those that show it in both, *terata anakatadidyma*. There are a number of subdivisions and a separate class in which one of the two individuals is called parasitic. Many specimens show minor as well as the major malformations.

The term *diprosopus* is applied to those malformations that show two faces or heads but not two necks, the duplication being limited to the head or face or part of the same. The subclasses depend on whether there are more than two eyes, two ears and one mouth. Nearly all die at or very soon after birth.

The Museum has four specimens from the calf, in which the malformation is common. Two are simply the skulls, in which there evidently were four eyes. Two specimens are heads; one has four eyes, and the head had to be cut off to deliver the fetus. There is also a skull of an antelope with four eyes; the brain was absent. Another specimen is a fetal lamb with four eyes.

This malformation is frequent in cats. Of 5 specimens 4 are skeletons of kittens; one had three eyes; two others had four eyes; and a fourth also had four eyes, but had no brain. Another specimen is a kitten with two eyes, two ears and two mouths.

The malformation is somewhat less frequent in the pig but the Museum has 4 specimens; one is a skeleton, the head poorly developed; there were four eyes and ears; a second had four eyes; a third is a pig with three eyes, no brain; a fourth another pig with three eyes.

It has been said that this malformation does not occur in the dog, but the Museum has one specimen from a fox terrier two days old in which the two mouths are shown; the animal was unable to suck; it was one of a litter of five, the others were normal.

There are two specimens from the chicken, each with two eyes, and a third eye partly duplicated; in one also the brain is absent. There is one specimen from the human subject, with three eyes; each face has a harelip and there is also spina bifida. The fetus lived half an hour.

The next class is called *dicephalus*; two heads so completely separated that the spine is partly duplicated; sometimes only the cervical part, at others a variable distance down to the sacrum. There may be additional upper limbs and even a rudimentary lower limb; and there is also more or less duplication internally. The external genitals are usually single. Some of these monsters live to adult age; as the Scotch brothers who lived 28 years; and

the Tocci brothers who may be still living. The malformation is relatively common; the sex is twice female to once male. But the two individuals of each monster are always of the same sex. The Museum has only a few specimens; one is the larva of a salmon, with two heads and two spinal columns. Another is from a tortoise that lived 9 months in the window of Mr. Schmid, the naturalist, on 12th street N. W. A third is from a new-born calf; two heads, two spinal columns down to the 12th thoracic vertebra, two hearts in one pericardium, two aortic arches uniting in one thoracic aorta, duplicate air passages and lungs, duplicate oesophagi, only one stomach. Another specimen is a human 7 months' fetus with two heads, two spinal columns down to the pelvis, two hearts in one pericardium, two lungs on the right side, one on the left; the case was published (*Trans. Med. Soc., D. C.*, 1901, page 139).

Another malformation not very rare, is known as *ischiopagus*; has two heads, two bodies, two spinal columns, and duplicate internal organs; the individuals are joined by the two sacra and two coccyges, there are four innominate bones; two well-formed lower limbs on one side and there may be an imperfect third limb on the other. The spinal columns are usually in line with each other. There are also usually other minor malformations. The Museum has two specimens, both human. One, however, is a model, in which the lower limbs on one side are joined down to the toes and one individual has double harelip. The other specimen is from a Filipino; the twins lived 49 hours and both of them nursed; one has a harelip; the lower limbs on one side are joined. This specimen was obtained by Sergeant F. W. Donoho, a member of the Hospital Corps, U. S. A., at Lopex in the Tayabas Province, P. I., and he took the trouble to bring it with him to the United States to the Museum. (*WASH. MED. ANNALS*, 1904, III, page 276.)

The next malformation is called *pygopagus* and is very rare; there is none in the Museum. The two individuals, as in the *ischiopagus*, are joined by the sacra and coccyges, but in such a way that they face away from each other. Some of them live to adult age; the Hungarian sisters, Helen and Judith, lived 22 years; the North Carolina twins, Millie and Christine, who at one time were exhibited in this city, were born in 1851; I think they are dead. The Bohemian twins, Rosalie and Josepha Blazek, were born in 1878 and may still be living.

Of the terata anadidyma, or monsters in which the duplication is from below upwards, the first to consider is called *dipygus*. The pelvis is duplicated, as also the pelvic contents, the genitals and lower limbs. The two additional limbs are usually imperfectly formed and in some cases are termed parasitic. There are many other minor malformations associated with the *dipygus*. These monsters sometimes live to adult age and in the human

subject, marry. The Museum contains specimens, mostly from birds; many from the chicken, some of them full grown; from the duck two specimens; from the turkey, one; also one from a gold-fish; one from a dog, in which the additional leg has two feet; one from a kitten with double harelip, cleft palate, spina bifida and absence of brain; one from a pig; none from the human subject.

Next comes the malformation called *syncephalus*, in which the upward division extends at least as high as the umbilicus, sometimes higher, and the head may also show duplication; in that case one face usually looks in one direction and is well formed, the other face is imperfect and looks in the opposite direction. This malformation is common; usually dies soon after birth. The Museum has 24 specimens. Eleven from the chicken, in two of which the brain was absent; one specimen from a gosling with absence of brain; one from a turkey, with absence of brain. Three from pigs, in one of which the lower jaw was absent, and in another, one face showed cyclops. One from a dog. Three from kittens. Four from the human subject; one a male fetus, at 5 months; one a female fetus at 6 months; and two new-born infants.

Next comes a much rarer malformation in which the upward division extends through the entire body to the head; the name is *craniopagus*. The junction is by corresponding parts of the head, frontal, parietal, or occipital. The brain is rarely involved. Some of these monsters live for years. The Museum has four specimens. One is from a duck, the union is frontal. Two others are models of a chicken on the second day, and four hours apart. The fourth, also a model, is a triple chicken embryo a few hours old, two of them united by the head.

Next we come to the malformations in which there is both upward and downward division, called *terata anakatadidyma*; the junction is limited to the region from the umbilicus to the head; names are given according to the place of junction.

Of these malformations the first to consider is called *prosopothoracopagus*, meaning a junction by face and thorax; spinal columns separate, except in the neck, which is single but broad; the two faces are imperfectly developed. This form is said to be very rare and unable to live after delivery. The Museum has four specimens. Three are from the chicken; one is at about the 16th day of incubation; another was unable to peck its way out of the shell, that, therefore had to be broken; in the third the brain was absent. In a specimen from the pig, there is a cleft palate, and two fore limbs are fused.

Next is the *thoracopagus*, which is one of the most common malformations; in mammals they nearly all die because of the difficult labor and if born alive do not long survive. The internal as well as the external organs are more or less duplicated. The

Museum has 5 specimens. One is from a chicken. A second from a pig. A third from a lamb; a stuffed specimen. A fourth from a human fetus, female, at about 5 months; one individual is a little larger than the other, and the adjoining arms and the adjoining legs are fused; imperforate rectum in each. A fifth, also a human female fetus at about term.

Next is the *xiphopagus* or *omphalopagus*, in which the junction is from the umbilicus to the ensiform cartilage; there is but one umbilicus and one umbilical cord. This malformation is not very rare, but is rarely born alive because of difficult labor. The best known case is that of the Siamese twins, born in 1811, and died in 1874, 63 years old. The autopsy showed that the bond of union consisted of the skin, fat, connective tissue, some muscle fibers, two pouches of peritoneum on each side, separated by connective tissue, a process of liver tissue, some blood vessels, and the ensiform cartilages.

Operations have been done to separate such individuals. One as early as the year 943 was done after the death of one of the twins, but the other also soon died. A second operation was done in 1868 and one twin was alive six months afterwards. A third was done by the father of the child, who was a physician; one twin died on the fourth day afterwards, the other lived at least five years. A fourth case, in 1881, was unsuccessful. In the case of the Siamese twins, the question of operation was seriously considered several times but nothing was done. While there is some doubt whether the operation would have been successful in those days, it would seem likely that it would succeed at the present day.

The Museum has one specimen, a male fetus at about 8 months; there was also an imperforate rectum in each twin, and clubfoot.

We next come to what are called double parasitic monsters. In one form termed *heterotypus*, with several sub-divisions, one twin hangs like a parasite from the abdominal wall of the host. The Museum has two specimens from the chicken.

Of what is called *heteralius*, and *polygnathus*, there are no specimens.

In *polymelus*, as the name indicates, there are additional limbs; lower limbs that may be attached to any part of the body of the other twin. The Museum has two specimens; one from a kitten in which the attachment was to the ensiform cartilage; in the other, from a pig, a skeleton, the attachment was to the anterior abdominal wall.

Next we come to the specimens known as *teratoma*, *fetus inclusio*, *inclusio fetalis*, or *endocyma*; that is, there are foreign tissues or organs included in some part of the main twin or host. These so-called parasites vary in character from simple to complex. Those dermoid cysts that contain only the elements of the skin should not be included here, but those that contain bone,

cartilage and teeth, which are not parts of the skin should be, I believe, and they are included here.

The following specimens are in the Museum. Two, consist of a small hen egg enclosed in a larger egg. A third, is a mass removed from the buttock of a newborn infant; contained various organs in a rudimentary state. A fourth a mass weighing 5 pounds, removed from the buttock of a girl nearly 5 years old; contained rudimentary limbs, fat, connective tissue and cartilage. A fifth from the buttock of a fetus at about 6 months. Also cysts as follows: One removed from abdominal wall of dog, contained connective tissue and bone. A second contained bone; from the ovary of a woman 17 years old. A third contained cartilage and bone; from the ovary of a woman age 16. A fourth from the ovary of a woman age 29, contained teeth. A fifth contained a tooth; removed after death from the ovary of an adult. A sixth was removed from the testicle of a boy two years old; contained bone and teeth.

In some treatises on malformations a separate place is given to those cases of diprosoposus, dicephalus, etc., in which one of the twins is so poorly developed as to suggest the idea of a parasite; more especially as it depends for its nourishment on the better developed twin. Some specimens that I have already mentioned might be so classed. In the dipygus particularly, one twin in most of the cases, is poorly developed. There is a model in the Museum of the celebrated case of John Baptist dos Santos, who was born in 1845, and may still be alive. To his pubic bone was attached a lower limb which was really a fusion of two limbs and with 9 toes. The external genitals were duplicated. The Museum has also a photograph of the case of Louisa L., to whose pubis was attached a rudimentary pelvis with two imperfect legs; she married and gave birth to two well-formed children. These cases are termed dipygus parasiticus.

Under *thoracopagus parasiticus* may be mentioned the well-known case of Collaredo, who grew to manhood and was exhibited throughout Europe. The Museum has two specimens; one a male fetus about term; the parasite is attached to the front of the thorax; the visible part consists of the shoulder, back, pelvis and limbs, imperfect nose, ear, etc. The other specimen is a plaster cast of a female infant that died when 5 months old from exposure while being exhibited; the parasite joined the host at the sternum; the visible part consists of the right shoulder and arm, the body below the waist and the lower limbs.

The Museum has two specimens that it is difficult to classify. One consists of two eggs joined together at one end by a short round band; calcification had not taken place. The other specimen is the skeleton of a lamb with two sternums, separated by a membranous interval and an additional rudimentary fore limb on one side; the diaphragm is said to have shown some duplication but

the viscera did not. Both these specimens seem to belong to the double monsters.

Those cases of twins in which one twin fails to grow as rapidly as the other, so that at delivery, it is much smaller, and those cases also in which the smaller twin is more or less mummified and flattened, are by some writers included among the malformations. The Museum has four specimens. In two, the flattened fetus was at about the third month; the placenta in each case was separate. In a third case the twins were, respectively, at about the fourth and sixth month when abortion took place. In a fourth, twin males with one placenta, one fetus was about term, the other about 5 months, and much shrunken.

Some congenital ectopias and hernias of the viscera are classed with malformations; so also, it would appear to be proper to include the specimen results of ectopic pregnancies. This has been done at the Museum, but as this is not the rule in the treatises on malformations I omit them from this paper. A few years ago I read a paper before this Society analyzing the specimens of ectopic pregnancy in the Museum (WASH. MED. ANNALS, 1903, II, page 328).

Additional digits are not uncommon, a condition called *polydactylism*; found often in the lower animals. Often hereditary in families. The Museum has preserved 4 specimens from the pig; three show 6 digits instead of the normal 4; one shows 5. From the human subject 10 are preserved. Six show the addition on the ulnar side, and three on the radial side. A number of specimens previously described also show the additional digit. The history in several of the cases states that other members of the family, immediate or remote, showed similar malformations.

In Memoriam.

HOMER SANFORD MEDFORD, M. D.

Dr. Homer Sanford Medford was born in Washington, D. C., January 24, 1873. He attended the public schools of the city, and graduated with honor in 1892, when he entered the Medical Department of the Columbian University, and was awarded the degree of Doctor of Medicine in 1895. As soon as he was graduated he was appointed resident physician at the Sibley Hospital, where he remained until January, 1896; he was then the successful candidate in a competitive examination for the position of second assistant resident at the Columbia Hospital for Women. At this institution he was promoted to the several positions, becoming resident physician January 1, 1897; this position he held

until his term expired July 1, 1897, when he engaged in private practice in this city, and was shortly afterward appointed as Instructor in Obstetrics in the Columbian University; this position he resigned about a year ago because of bad health.

Dr. Medford had been connected with the city government for some years as Physician to the Poor and no greater compliment could be paid one than the devotion of those poor people to him for his kindness and attention to them. Dr. Medford was prominently identified with several fraternal orders, especially the Masons and Elks. He was a member of several medical bodies in each of which he took an active interest until his health became impaired.

Dr. Medford while in bad health for several years was not seriously ill until early in December when he was taken to Providence Hospital, and died of pneumonia December 16, 1911. His father, mother and two sisters survive him.*

WHEREAS, Almighty God has seen fit in His wisdom to call from our midst Dr. Homer Sanford Medford, therefore

Resolved, That the Medical Society of the District of Columbia has lost a highly esteemed and valuable member in his death.

Resolved, That we tender our sincere sympathy to his family in their deep bereavement and that this preamble and these resolutions be placed upon the minutes and that a copy be sent to the family.

(Signed) A. BARNES HOOE,
A. W. BOSWELL,
D. OLIN LEECH, *Committee*.

*Adopted by the Medical Society of the District of Columbia, January 17, 1912.

Financial Statement.

ANNUAL REPORT OF THE TREASURER OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

Summary of Receipts and Expenditures from Jan. 1 to Dec. 31, 1911.

RECEIPTS.

1. Cash balance on hand per cash book, Jan. 1, 1911.....	\$401.96	
2. Entrance fees for 1911.....	55.00	
3. Assessments for 1909.....	\$120.00	
1910.....	444 00	
1911.....	888.00	
1912.....	12.00	
History.....	36.00	1,500.00
4. Interest on deposit at 2 per cent.....	6.72	
5. Subscription MEDICAL ANNALS.....	1.00	
		<hr/> \$1,964.68

WASHINGTON MEDICAL ANNALS

EXPENDITURES.

1. Stipend, Recording Secretary.....	\$200.00
2. Stipend, Treasurer.....	200.00
3. Expenses, rent of halls.....	180.00
4. Expenses, Corresponding Secretary.....	379.13
5. Expenses, Recording Secretary.....	10.63
6. Publishing MEDICAL ANNALS.....	678.51
7. Miscellaneous.....	54.51
8. Balance carried forward, 1912.....	261.90
	<hr/>
	\$1,964.68

REPORT OF TREASURER OF THE LATE MEDICAL ASSOCIATION OF THE
DISTRICT OF COLUMBIA FROM JUNE TO DECEMBER, 1911.

Received from the late Treasurer, Dr. Frank Leech.....	.65
From assessments.....	\$243.00
	<hr/>
	243.65
Disbursed.....	232.07
	<hr/>
Balance in Columbia National Bank subject to check.....	\$11.58

*Statement of Assets and Liabilities of the Medical Society of the District of
Columbia to December 31, 1911.*

ASSETS.

1. Cash on hand, December 31, 1911.....	\$261.90
2. Furniture, iron safe, estimated.....	\$65.00
book cases.....	25.00
blackboard.....	1.50
3. Unpaid assessments for 1910.....	244.00
1911.....	720.00
History.....	27.00
4. 500 volumes, History Medical Society.....	500.00
	<hr/>
Total assets	\$1,844.40

LIABILITIES.

1. Estimate of expense for publishing MEDICAL ANNALS, Volume X, No. 6.....	\$150.00
2. Estimate for storing furniture of Medical Society.....	20.00
	<hr/>

Net assets of Medical Society..... \$1,674.40

Total collections for 1911.....	\$1,562.72
Members dropped for non-payment of dues.....	4
resigned.....	1
died.....	5

C. W. FRANZONI, M. D.,
Treasurer Medical Society.

PROCEEDINGS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

Stated Meeting, Wednesday, January 3, 1912.—The President, Dr. J. B. Nichols, presided; about fifty members present.

The Treasurer presented his annual report, which was referred to the Executive Committee for audit. See page 57.

Dr. McLaughlin, Chairman of the Executive Committee, reported that in compliance with the provisions of the Constitution, steps had been taken looking to the organization of the sections. The committee had received a report from a section on Ophthalmology, Rhinology, Otology and Laryngology, indicating that this section had organized, elected officers and adopted by-laws; a copy of the latter had been submitted to the committee. The committee recommended that this section be recognized and placed upon the calendar. The recommendation was adopted.

Dr. D. S. Lamb, for Committee on Publication, submitted a bill for \$21, being the amount expended by him for postage; he offered to accept the amount of the bill in histories of the Society of an equivalent value.

It being necessary shortly to print a roster of the Society's membership, he desired instructions as to carrying on the roll the names of such members as had not resigned but who reside elsewhere than in this District. On motion of Dr. Roy, it was ordered that out-of-town members who pay dues be continued on the roll until they indicate a desire to terminate their membership.

On motion of Dr. G. Wythe Cook the treasurer was instructed to pay the amount of the bill for postage submitted by the Publication Committee, viz: \$21, and it was ordered that Dr. Lamb be allowed twenty-one or more volumes of the History of the Society for disposal as he may see fit.

Dr. Hammett, chairman of the Section on Ophthalmology, Otology, Rhinology and Laryngology, submitted the following report of the organization of the section and the program for the season's work:

The section on Ophthalmology, Otology, Rhinology and Laryngology was organized at a meeting held November, 15, 1911, after the regular meeting of the Medical Society. A call for this meeting was sent to every member of the Society on the regular announcement cards of the Society. All members desiring to join the section were invited to attend the meeting. About 20 members were present at the meeting.

The following temporary officers were elected: Chairman, Dr. Charles M. Hammett; Vice-Chairman, Dr. Oscar Wilkinson; Secretary, Dr. Charles L. Billard.

In conformity with a motion that was adopted, a committee consisting of Drs. Shute, Walker and Heitmuller was appointed

by the temporary chairman to formulate by-laws to be submitted to the section at its next meeting. The meeting then adjourned.

At a meeting held November 29, the section adopted with slight modifications the by-laws submitted by the committee on by-laws. A copy of the by-laws with a list of members was submitted to the chairman of the Executive Committee of the Medical Society for approval, accompanied by a request that the section be formally recognized.

At the regular meeting in December permanent officers were elected to serve for one year: Chairman, Dr. Charles M. Hammett; Vice-Chairman, Dr. Oscar Wilkinson; Treasurer, Dr. Reginald R. Walker; Secretary, Dr. George H. Heitmuller. Program Committee: Dr. D. K. Shute, chairman; Drs. J. J. Richardson, Walter A. Wells, and the chairman, and secretary ex-officio.

The Georgetown Medical School, through the dean, Dr. George M. Kober, has granted the use of its library room as a meeting place for the section without cost.

The program committee announced the following program for the year 1912:

January 9, Dr. V. B. Rench will read a paper on "Imperfect hearing in its relations to the nose, naso-pharynx and pharynx."

February 13, Dr. Maurice E. Miller will be the essayist.

March 6, the section will provide the scientific program for the Medical Society at its regular meeting. Papers will be read by Drs. Charles W. Richardson and W. H. Wilmer.

April 9, Dr. C. R. Dufour will present a paper.

May 14, Dr. Reginald R. Walker will be the essayist.

October 12, Dr. A. B. Bennett will read a paper.

November 12, Dr. Oscar Wilkinson will be the essayist.

December 10, Dr. C. L. Billard will be the essayist.

January 14, 1913, Capt. W. T. Davis (U. S. A.) will read a paper on "The results of some experimental work in the production of Myopia."

There are at present 23 members in the section, as follows: Drs. C. M. Hammett, C. R. Dufour, J. J. Richardson, W. A. Wells, D. K. Shute, W. S. Newell, J. H. Stone, Oscar Wilkinson, G. H. Heitmuller, M. E. Miller, R. R. Walker, C. L. Billard, S. B. Muncaster, E. G. Seibert, A. B. Bennett, F. B. Loring, W. H. Wilmer, V. B. Rench, Virginius Dabney, W. T. Davis, O. A. M. McKimmie, Charles W. Richardson and John H. Metzertott.

The following applications for admission as active members were received:

Rush West Conklin, George Washington University, 1909.

Oliver Clemence Cox, George Washington University, 1911.

Roy Franklin Dunmire, George Washington University, 1908.

Alfred Glascock, Columbian University, 1902.

Janvier Whitton Lindsay, Johns Hopkins University, 1908.

Eugene Theodore Stephenson, George Washington University, 1907.

W. D. Tewksbury, George Washington University, 1908.

A letter of resignation of membership of Dr. W. E. Poulton was read. On motion his dues were remitted and his name placed on the superannuated list.

Letters from the American Medical Association pertaining (a) to a plan for holding public meetings under the auspices of the society for the dissemination of knowledge upon topics concerning the public health, and (b) to a local committee upon medical education, were referred to the Executive Committee.

The Chair announced the following committee appointments :

Committee of Censors : E. A. Balloch, L. A. Johnson, G. Brown Miller, L. H. Reichelderfer, Ada R. Thomas.

Committee on Program : T. C. Smith, W. C. Borden, C. S. White, P. S. Roy, W. A. Wells.

Committee on Publication : D. S. Lamb, B. G. Pool, H. H. Donnally, T. Abbe, W. W. Wilkinson.

The Chair announced the death of Dr. Homer S. Medford, and appointed Drs. D. Olin Leech, Boswell and A. B. Hooe a committee to report resolutions of respect to his memory.

Dr. B. M. Randolph offered the following resolution : " That the President of the Medical Society of the District of Columbia is hereby instructed to appoint a committee for the purpose of drafting a resolution to be presented to the proper committee in Congress, urging the repeal of the law prohibiting the sale of beer at U. S. Army posts. That this committee report to the Society at its next regular meeting." Seconded by Dr. Barton, and carried. The Chair appointed Drs. Randolph, Barton and Prentiss Willson as the committee.

The following amendments to the proposed by-laws were adopted :

SEC. IV. Strike out the word " five" in line 5, and substitute therefor the word " seven."

SEC. VIII, Par. 2. Strike out the words " Physicians to the Poor" and insert in lieu thereof the words " the Board of Charities."

SEC. VIII, Par. 3. Strike out the paragraph, and number the succeeding paragraphs 3, 4, 5, 6, 7, 8 and 9, respectively.

SEC. IX, Par. 8. Strike out the words " at least once in three months," etc., and use in lieu thereof the word " monthly."

The by-laws as a whole, amended as above, were unanimously adopted.

Dr. Tom A. Williams submitted " a plan of organization to minimize the present difficulties" as an amendment to the by-laws. Referred to the Executive Committee for consideration and report.

The following amendment to the Constitution was adopted: To Art. VIII, Sec. 2, add the words "Section on nervous and mental diseases."

Wednesday, January 10.—The President, Dr. Nichols, presided; about 60 members present.

Dr. Abraham Jacobi, of New York City, an honorary member of the Society and President elect of the American Medical Association, addressed the Society on "Colds." A rising vote of thanks was given to him for his interesting and instructive address.

The Society afterwards adjourned to the Cosmos Club, where a reception was being given by it to Dr. Jacobi.

Wednesday, January 17.—The President, Dr. Nichols, presided; about 75 members present.

A letter was read from Dr. Wm. A. White, Superintendent of the Government Hospital for the Insane, extending an invitation to the members of the Society to attend a meeting of the Hospital Staff, under the auspices of the Society of Nervous and Mental Diseases.

Dr. G. Wythe Cook, Chairman of the Executive Committee, reported that the recently elected committee had met, had effected organization, and had elected himself chairman, Dr. T. N. McLaughlin vice-chairman, and Dr. H. T. A. Lemon, secretary.

Dr. E. A. Balloch, Chairman of the Committee of Censors, made a favorable report upon the applications of Drs. Albert Perkins Tibbets and Elijah White Titus for active membership. He asked that the applications of Drs. Russel B. Main and Michael J. Ready be referred back to the committee for further investigation and consideration. So ordered.

Drs. Tibbets and Titus were elected to active membership.

Dr. A. B. Hooe, on behalf of the committee, reported resolutions of respect to the memory of Dr. Homer S. Medford, which were unanimously adopted. See p. 56.

Dr. B. M. Randolph, from the special committee, reported the following resolutions urging Congress to pass the bill restoring the right to maintain the "canteen" at Army posts. The report was adopted and referred to the Executive Committee for the execution of its provisions.

WHEREAS, It is the almost unanimous testimony of the Medical Staff and general officers of the United States Army that the Act of Congress approved February 2, 1901, in so far as it prohibits the sale of beer in the Army posts, thereby abolishing the so-called "canteen," has not resulted in decreasing alcoholism, or increasing the efficiency of the Army, and

WHEREAS, It is a fact well known to all medical men that the contraction of venereal disease (gonorrhea, syphilis and chan-croid) by men is, in a large majority of cases, associated with and due to alcoholic intoxication, and

WHEREAS, The incidence of venereal disease in the Army has been very much higher since the abolition of the "canteen," and

WHEREAS, This increase in venereal disease is attributed, and undoubtedly due in a large measure, to exposure to infection without the post while the men are in a state of intoxication, and

WHEREAS, Persons suffering with venereal disease are a grave menace to society at large—immediately, by reason of spreading their infection; and later, by destroying the health of their wives, causing abortion and childless marriages, and raising children that are the victims of inherited syphilis or blind because of gonorrheal infection caused at birth, and

WHEREAS, This menace to the public is relatively greater in relation to the soldier than to other men in a community, because :

1. By reason of his frequent transfer from post to post, he has a wider range over which to spread his infection.

2. Because of his short term of enlistment, a large percentage of cases must be discharged from medical observation before they are cured.

3. Because of his youth, and practical state of enforced celibacy, he is more liable to contract venereal infection than the average male population, and is also more likely to marry after his term of enlistment has expired, and

WHEREAS, It is an acknowledged principle of republics in general, and American institutions in particular, that the Government shall not interfere with the liberty of the individual, except when it is demanded for the general good, and

WHEREAS, The interference with the personal liberty of the soldier through the Act prohibiting him from purchasing mild liquors within his post has not, according to the overwhelming testimony of those best qualified to judge, resulted in the benefit of the Army, but has, on the contrary, been the cause of impaired discipline, lessened efficiency, and an increase in alcoholism and venereal disease; therefore,

Be it Resolved, That the Medical Society of the District of Columbia does hereby respectfully petition and urge the Congress of the United States to act favorably at this session upon the bill introduced by Mr. Bartholdt, of Pennsylvania (H. R., 30), entitled "A Bill to amend an Act entitled 'An Act to increase the efficiency of the permanent military establishment of the United States,'" approved February 2, 1901, by repealing that section which prohibits the sale or dealing in beer, wine, or any intoxicating liquors, by any person in any post exchange or canteen or Army

transport, or upon any premises used for military purposes by the United States.

(Sec. 38, Act of Feb. 2, 1901, 31 Stat. L., 758).

Prepared and reported to the Society by

(Signed) B. M. RANDOLPH, Chairman.

W. M. BARTON,

PRENTISS WILLSON, *Committee.*

Dr. Tom A. Williams, Chairman of Committee on Public Instruction in Medical Matters, called attention to the report of that committee published in the WASHINGTON MEDICAL ANNALS, November, 1911, and to the fact that action had not been taken on the report. He stated that meanwhile (*a*) a local organization had undertaken one feature of the work recommended in the report, and that this particular activity need not be duplicated; and (*b*) that the American Medical Association has undertaken a nation-wide campaign of instruction in public health matters, and had invited this Society to participate. He therefore asked Dr. Balloch to present certain resolutions which pertained to this matter.

Dr. Balloch offered the following resolutions:

WHEREAS, The American Medical Association has met the demand for popular instruction concerning the nature and prevention of disease by providing for a standing committee of the Council on Health and Public Instruction, to be known as the Committee on Public Health Education, and

WHEREAS, This Committee for Public Health Education under direction of the Council is requesting every county medical society to name a special committee on Public Health Education to work along the plans outlined by the Public Health Education Committee of the American Medical Association, and

WHEREAS, The Public Health Education Committee of the American Medical Association has a local chairman in the District of Columbia, who has the work already well organized, therefore be it

Resolved, That the Medical Society of the District of Columbia respond to this request by making the present Committee on Public Instruction in Medical Matters a permanent committee to disseminate accurate information concerning the nature and prevention of disease and the general welfare of the people along lines outlined by the Committee of the American Medical Association; and be it further

Resolved, That in accordance with the request of the Committee of the American Medical Association its local chairman is added as a member of the Committee on Public Instruction in Medical Matters of the Medical Society of the District of Columbia.

Dr. Folkmar addressed the Society in explanation of the local work of public instruction, and Dr. H. M. Bracken, of Minne-

sota, spoke upon the scheme proposed by the American Medical Association.

The resolutions were then adopted and the committee provided for therein appointed: Drs. Tom A. Williams, N. P. Barnes, W. A. Wells and Elnora C. Folkmar.

On motion of Dr. Folkmar the Chair was instructed to appoint two lecturers in response to the request of the Committee of Public Health Instruction of the American Medical Association. The Chair appointed Drs. Barton and Reichelderfer.

A letter was read inviting the Society to participate in a Public Health Week to be held under the auspices of the Medical and Chirurgical Faculty of Maryland. Referred to the Executive Committee.

The Treasurer was authorized to have printed a circular letter to be sent to members urging the payment of dues in arrears.

Dr. Chappell presented a circular letter issued by A. C. Barnes & Co., of Philadelphia, accusing certain local druggists of substituting a spurious product in prescriptions calling for "Argyrol" and alleging that the spurious product is a harmful and dangerous drug. He moved the reference of the letter to the Committee on Pharmacology of the American Medical Association for an opinion as to the harmfulness of the substitute preparation complained of in the letter. The letter was so referred.

Wednesday, January 24.—The President, Dr. Nichols, presided; about 115 members present.

Dr. Tom A. Williams, for the Committee on Public Instruction in Medical Matters, reported that the committee had met and decided to request the appointment by the Chair of two additional members.

The committee had decided not to embark upon the whole program as suggested by the A. M. A. For the present, with the consent of The Woman's Clinic, the committee had decided to take over that part of the work projected by the Clinic having to do with publication; therefore the committee had arranged with all four local newspapers for the publication of papers within the province of the committee's proper activities. The committee had determined that the published articles (*a*) should not be signed; (*b*) that contributions should be edited by the committee; and (*c*) that contributions should be published as coming from the Medical Society. The committee would gladly receive from members of the Society articles which could be used for publication in the newspapers.

The committee had been requested by The Woman's Clinic to take over the management of a series of lectures to be advertised and to be held in some large hall. The committee had agreed provisionally, and had undertaken to arrange for a lecture to be given at the Public Library, February 1, by Dr. Bigelow, of the

Agricultural Department, upon the subject of Pure Foods and Food Adulteration.

The committee asked for an appropriation of \$5.00 to defray the expenses of this lecture.

On motion, the report was accepted and the recommendation agreed to. The Chair appointed Drs. Randolph and Mallory additional members of the committee.

Dr. H. T. A. Lemon, Secretary of the Executive Committee, reported that the committee had directed him to arrange for adequate telephone service, and he requested the appropriation of \$1.00 per week to secure the services of a telephone messenger. Granted, with instructions that the fee should cover other services in connection with the meetings.

Dr. Roy said that he had been requested to offer the following resolution touching hospital charities, and he was willing to do this, inasmuch as he was not a member of the staff of any hospital:

"The Executive Committee of the Medical Society of the District of Columbia is hereby directed to oppose the recommendation by the Board of Charities of the District of Columbia relating to the separation of public and private hospital charities, generally known as the coöperative plan between municipalities and incorporated hospitals.

"The Executive Committee is directed to call upon any member of the Society who it feels can aid it in the matter."

Dr. A. B. Hooe moved the adoption of the resolution. The motion was seconded.

Dr. Kober said that the resolution committed the Society to a definite position in regard to a matter of great public importance, a matter that must on the face of it give opportunity for more than one opinion as to its merits, a matter that affected, more or less directly, all the physicians of the District, and a matter that could not be considered intelligently without opportunity for taking testimony bearing upon both sides; for these reasons, and for the reason that the general profession was not aware that action was to be taken upon this question, he moved to amend the resolution offered by Dr. Roy, to the effect that the Executive Committee be instructed to "report to the Society, after due investigation, as to the merits of the question, and that notice be given to all the members of the purpose to act upon the resolution."

Dr. Kober's motion to amend was seconded, but was defeated. Dr. Hooe's motion to adopt the resolution offered by Dr. Roy was carried.

Dr. W. P. Carr presented a specimen of Tumor of the Brain; the history of the case was given by Dr. O. Wilkinson, and comments on its clinical features were given by Drs. Roy and Williams. Discussed by Drs. Carr, Roy and T. A. Williams. P. 11.

Wednesday, January 31.—The President, Dr. Nichols, presided; about 125 members present.

Dr. G. Wythe Cook, Chairman of the Executive Committee, reported the following recommendations: (*a*) That at regular meetings the time to be allotted to the transaction of general business be limited to 30 minutes; (*b*) that the annual dues of this Society begin and are payable January 1, 1912; (*c*) that a delegate to the Association of American Medical Colleges be appointed. The recommendations were approved and the report adopted.

The Chair appointed Dr. John D. Thomas delegate to the Association of American Medical Colleges.

At the request of the Chairman of the Committee on Public Instruction in Medical Matters an appropriation of \$15 was made to defray the expenses of that committee.

Dr. Prentiss Willson proposed the following resolution: That the Executive Committee be instructed to prepare a by-law providing that any resolution involving the expression of the opinion of the Society in public matters shall lie upon the table for one week and not be acted upon until due notice of its consideration shall have been given to all the members. Adopted.

Dr. Tom A. Williams, in collaboration with Dr. Abbe, reported an Unusual Case of Locomotor Ataxia, and presented the patient. Discussed by Drs. Mackall, Chappell, Abbe, H. A. Fowler and Williams.

Dr. Hagner reported a Case of Cancer of the Penis, cured by amputation, and presented the patient. Discussed by Drs. Frank Leech, Mackall, Randolph, H. A. Fowler, Dollman, L. B. Tomson and Hagner.

Dr. A. F. A. King read a paper entitled: Civilization, Constipation, Reversion. Discussed by Drs. Mallory, A. B. Hooe, Williams, Skinner, I. S. Stone, Carr, Macatee and A. F. A. King. See p. 1.

Wednesday, February 7.—The President, Dr. Nichols, presided; about 120 members present.

The Corresponding Secretary read a letter from Dr. A. Jacobi, in response to one offering to reimburse him for expenses incurred in coming to address the Society, expressing the sentiment that the reception accorded to Dr. Jacobi and his address compensated him fully, and declining to be further reimbursed. The Corresponding Secretary also presented a letter from the Council of Pharmacy and Chemistry, A. M. A., in reference to a letter referred by the Society to that Council. The reply was referred to the Executive Committee.

The Treasurer presented his report for the month of January, showing: Receipts, \$415.00; disbursements, \$53.25.

Dr. D. S. Lamb made the following report from the Committee

on Publication and asked an appropriation of \$245.90 for publication of the January number of the ANNALS. The report was accepted and referred to the Executive Committee, and the appropriation was granted.

The Committee on Publication herewith submits a report for the past ten years. The January number of the ANNALS ends the tenth volume and tenth year of publication. The committee recommends that Volume XI end with the November number of the current year, so that the volume and the fiscal year of the Society may coincide. Heretofore the volume has begun with the March number and ended with the January number.

When the first number was printed, in 1902, the Society had a membership of 285; with the January number, 1912, the Society has a list of 574, a gain of 289, or 100 per cent., in ten years; of these, 138 came over from the late Medical Association. Double the original number of copies, therefore, have to be printed and sent out, and the expense, therefore, is correspondingly increased.

The total number of pages printed in the ten volumes is 4,654, excluding the indexes, an average per volume of 465 pages. The smallest number of pages, namely 400, appears in Volume IV; the largest number, 551, in Volume VI. The net cost of publication for the ten volumes, after deducting receipts from advertisements and other sources of revenue, is per volume \$641.81; the average cost per page for the first volume was \$1.33; for the last volumes, \$2.05, an increase of 33 per cent. in the cost of publication in ten years. It should be explained that the cost of publication includes not only the actual printing, but wrapping and mailing and the necessary stationery used in the work.

It will be seen that, in spite of the doubling of the membership and increase in cost of printing, the average cost per volume has been but little more (\$641.81) than the limit of \$600.00 set by the Society in 1902.

If we attempt to compare the cost of publication with that of other societies, we are met at once with the fact that but few journals publish any statement of receipts and expenditures. I know of but two which have done so, namely, the *Colorado Medical Journal* and the *West Virginia Medical Journal*. The latter is the latest, namely, for 1909-10. The West Virginia journal is published by the State Medical Association, which has 803 paid up membership; the dues \$5.00 per year, and the receipts, therefore, \$4,000.00 for the year named. For that year the journal comprised 434 pages, double column, and the cost was \$979.60—with the addition of \$1,000.00 paid to the editor, a total of \$1,979.60—nearly half the income from dues, or \$2.46 per member. The cost per member to this Society has been \$1.12, or less than half that of the West Virginia Medical Association.

The Society now exchanges with other journals or deposits in libraries to the number of 70 copies, which, with the number required to supply the active and honorary members, means the issue of not less than 650 to 675 copies. The committee, however, invites attention to the fact that with 17 members whose residence is put down as outside this District, and in view of another fact, as stated by the Treasurer of the Medical Association, that no assessment had been made on the members of that Association for two years, it is probable if bills were sent to all the 574 names that from 25 to 50 would be dropped from the list.

It is safe to say that but for the ANNALS much of the material printed therein would not have been published at all.

In conclusion, the committee would recommend to the Society, 1st, the consideration of making a charge for additional pages over a stipulated number; 2d, that the volume year end with the November number.

It would also recommend that bills for the current year be promptly sent out, so that those members who are not interested in the Society may resign and the expense of maintenance thereby be reduced.

The aim of the committee has been, in addition to publishing the papers read before the Society and offered for publication, the Proceedings of the Society in brief, the Memorials and some other action of the Society in detail, to present more or less of the local medical news. The committee trusts that this effort has received favorable recognition, and unless otherwise instructed, will continue to give this feature considerable attention.

(Signed) D. S. LAMB, Chairman,
For the Committee.

Dr. Williams, for the Committee on Public Instruction in Medical Matters, reported that the committee had been charged with answering two letters and had disposed of the business as follows:

(a) An invitation to participate in the Health Week projected by the Medical and Chirurgical Faculty of Maryland had been declined for the reason that not sufficient time remained for action by this Society. The committee recommended that the Chair appoint delegates to attend the Baltimore meeting.

(b) A letter from the A. M. A., asking for the arranging of public meetings to be addressed by speakers from adjoining States, had been answered by the committee, with a request to defer action in this matter.

The committee had decided to continue the series of public lectures already begun, but to discontinue the afternoon lecture because of small attendance. An appropriation of \$4.00 was asked for the expenses of the lecture. The report was adopted, the appropriation granted, and the Chair appointed Drs. J. D.

Thomas, Barnes, Tom A. Williams, Woodward and G. Wythe Cook delegates to the Baltimore meeting.

Dr. W. O. Owen proposed the following resolution :

"*Resolved*, That upon the request of ten members that there shall be taken a vote of the entire membership of the Society, it shall become the duty of the Secretary to prepare and issue, with the next notices to the Society, a notice of the question to be balloted on, and request to the membership for a return of the ballot. The ballots so received in the mail by the Secretary shall be counted at the next meeting of the Society, in open meeting, by tellers chosen by the President. A reply postal card may be used." The resolution was referred to the Executive Committee.

Drs. Tom A. Williams and J. D. Thomas presented a patient suffering from Syringomyelia. See p. 22.

Symposium on Dietetics.—Dr. P. S. Roy made some general remarks on Feeding ; Dr. W. Gerry Morgan : Feeding in diseases of the stomach ; Dr. Tom. A. Williams : Feeding in diseases of the nervous system ; Dr. Frank Leech : General principles of infant feeding ; Dr. C. W. Richardson : Feeding in vasomotor conditions of the upper air passages. General discussion by Drs. T. C. Smith, Carr, Ramsburg, Prentiss Willson, Mallory, S. S. Adams, Chappell, Roy, Gerry Morgan, Williams and Frank Leech. See p. 23.

Wednesday, February 14.—The President, Dr. Nichols, presided; about 90 members present.

Dr. G. Wythe Cook, from the Executive Committee, reported upon several matters that had been referred to the committee, as follows :

(1) A recommendation of the Committee on Publication that the numbering of the volumes of the ANNALS be changed so as to coincide with the calendar year. The Executive Committee recommended approval.

(2) A resolution offered by Dr. Prentiss Willson January 31. The by-law directed by that resolution would be drafted by the committee and proposed as an amendment to the by-laws at the March stated meeting.

(3) The committee would propose a by-law at the March stated meeting providing that the consideration of general business at regular meetings be limited to thirty minutes.

(4) The committee recommended adverse action upon the resolution proposed by Dr. W. O. Owen February 7.

(5) The committee recommended that the expenses of the delegate to the National Legislative Council of the A. M. A. be paid by the Society.

The recommendations of the report were adopted.

A letter from a Women's Committee advocating the abolition of the high street-car step, and asking the endorsement of their

campaign by this Society, was referred to the Executive Committee.

A letter from Dr. W. A. Ruble, of Loma Linda, California, asking permission to retain his membership in the Society, was referred to the Executive Committee.

Dr. D. S. Lamb presented specimens of leprosy from the Philippine Islands, and discussed the etiology, distribution and gross pathology of the disease. Discussed by Drs. Williams, Simpson and Spear. See p. 19.

Dr. Rhoads, U. S. A., addressed the Society on the surgical treatment of abscess of the liver, and exhibited a patient recovered from his fourth operation for recurrent abscess of the liver.

Dr. Raymond Spear, U. S. N., showed a patient operated upon four times for abscess of the liver, and related the history of the case.

The cases were discussed by Drs. Carr, Shands, Rhoads and Spear.

WASHINGTON MEDICAL ANNALS.

Journal of the Medical Society of the District of Columbia.

Published Bimonthly by the Society, at No. 2114 Eighteenth Street, N. W., Washington, D. C. Subscription price, including postage, \$1.00 per year, in advance. Single copies, 20 cents. Advertising rates given on application.

COMMITTEE ON PUBLICATION.

D. S. LAMB, A. M., M. D., *Chairman and Editor*, 2114 Eighteenth St., N. W.

Associate Editors.

B. G. POOL, M. D.,	945 Rhode Island Avenue, N. W.
H. H. DONNALLY, M. D., A. M., B. S.,	1612 I Street, N. W.
TRUMAN ABBE, A. B., M. D.,	Stoneleigh Court.
W. W. WILKINSON, M. D.,	The Rochambeau.

Editorial.

History of the Medical Society of the District of Columbia — This book should be in the hands of every member of the Medical Society. The price is only \$1.00, with 25 cents added if delivered in this city or sent by mail. Address Dr. C. W. Franzoni, 605 I Street, N. W. The books are in the custody of Dr. D. S. Lamb, at the Army Medical Museum.

THE OTHER MEDICAL SOCIETIES OF THE DISTRICT OF COLUMBIA.

THE PROGRAM of the MEDICAL HISTORY CLUB of Washington, D. C., for 1912, is as follows :

Mar. 30. Medicine in Lay Literature, by Dr. B. M. Randolph.

April 24. History of Ophthalmology, by Dr. D. K. Shute.

This Society was organized three years ago and has a membership of about twenty-five. The officers are : President, Dr. C. W. Richardson ; Vice President, Dr. B. M. Randolph ; Secretary, Dr. H. W. Lawson, 1117 Vermont Ave.

THE HIPPOCRATES SOCIETY, the object of which is "the cultivation and promotion of knowledge in whatever relates to the science of medicine and surgery," holds meetings on the second Thursday of each month from October to May. The membership in this Society is limited to 25. The officers for the present season are : President, Dr. Thomas S. D. Grasty ; Vice President, Dr. Wm. G. Young ; Secretary-Treasurer, Dr. Laurence M. Hynson. Schedule of meetings for session of 1912 :

April 11, at Dr. H. C. Macatee's, 2465 18th St. Dr. C. L. Davis.

May 9, at Dr. Wm. Cabell Moore's, The Wyoming. President's Address.

The Society was entertained, March 14, by Dr. Wm. T. Davis, Captain, Medical Corps, U. S. A. Dr. Davis was a charter member.—W. W. W.

SOCIETY OF OPHTHALMOLOGISTS AND OTOLOGISTS of Washington.—At the annual meeting held in May, 1911, Dr. S. B. Muncaster was elected President, Dr. Robert Scott Lamb, Vice President and Dr. A. B. Bennett, Secretary-Treasurer. The meetings are held on the third Friday in the month from October to May, inclusive.

THE CLINICAL SOCIETY of Washington, which was organized in 1894, is composed of twenty-five active members, besides the retired members. An active member may become retired after ten years of active membership.

The officers are : Dr. C. M. Hammett, President ; Dr. T. A. Groover, Vice President, and Dr. Wm. Earl Clark, Secretary-Treasurer. Censors : Drs. L. A. Johnson and J. D. Thomas.

The program for 1912 is as follows :

April 8. Dr. W. M. Barton, essayist ; at Dr. W. E. Clark's, The Rochambeau. Discussion led by Dr. J. B. Nichols.

May 13. Dr. L. A. Johnson, essayist ; at Dr. H. H. Donnally's, 1612 Eye St., N. W. Discussion led by Dr. M. D'Arcy Magee.

Oct. 14. Dr. V. B. Jackson, essayist ; at Dr. T. A. Groover's, The Iroquois. Discussion led by Dr. D. W. Prentiss.

Nov. 11. Dr. A. B. Hooe, essayist ; at Dr. Sothoron Key's, 1716 H St., N. W. Discussion led by Dr. L. H. Reichelderfer.

Dec. 9. Dr. F. L. Biscoe, essayist ; at Dr. J. D. Thomas', 1716 M St., N. W. Discussion led by Dr. Monte Griffith.

THE WOMEN'S MEDICAL SOCIETY of the District of Columbia meets on the second Tuesday of each month from October to May, inclusive. The officers are Dr. Mary Parsons, President ; Dr. Bordeau-Sisco, Vice President ; Dr. Mary Holmes, Recording Secretary and Treasurer, and Dr. Martha M. B. Lyon, Corresponding Secretary.

The program for 1912 is as follows : April at Dr. Lyon's, Dr. E. C. Folkmar, essayist ; May, business meeting, at Dr. Phoebe Norris'.

THE GALEN SOCIETY of the District of Columbia. Dr. H. J. Bryson, President ; Dr. R. Lee Spire, Secretary - Treasurer. Schedule for 1912 :

April 22, at Dr. E. Comstock Wilson's, 11th and Mass. Ave., N. E. ; Dr. E. G. Seibert ; Mastoid disease.

May 20, at Dr. E. P. Copeland's, The Rockingham ; Dr. Charles A. Hyde ; Tubercular meningitis, with report of case.

October 21, at Dr. R. Lee Spire's, 1609 North Capitol Street ; Election of Officers ; Miscellaneous business.

THE CLINICO-PATHOLOGICAL SOCIETY was founded Mar. 23, 1888, and has had a continuous active existence ever since. The name was taken from an older society which had existed in Washington and which had become extinct. The purpose of the Society, as stated in its Constitution, is the advancement of clinical and pathological research.

The active membership is limited to twenty-five. Inactive members are those who have withdrawn after an active membership of ten years or more. (This limit has recently been increased to fifteen years.) There is also a limited honorary membership, composed of distinguished medical men. Meetings are held on the first and third Tuesdays of each month from October to May, inclusive. The standard of professional work of this Society has always been well maintained, and a number of important contributions to medical literature have been first presented at its meetings.

The officers for 1911-12 are : President, Dr. Wm. Gerry Morgan ; Vice Presidents, Drs. Sothoron Key and E. E. Morse ; Secretary and Treasurer, Dr. B. M. Randolph.

Program for 1912 :

DATE.	PLACE OF MEETING.	ESSAYIST.	TO OPEN DISCUSSION.
April 2.	Dr. Claytor, 1315 N. H. Ave...	Dr. Thomas.....	Dr. Lee
April 16.	" Johnson, Cherrydale, Va.	" Russell.....	" Claytor
May 7.	To be specified	Invited guest.	
May 21.	" Morgan, 1417 R. I. Ave...	President's Address.	
Oct. 15.	" Parker, 1518 Conn. Ave...	Election of Officers.	
Nov. 5.	" Miller, 1730 K Street	Dr. Johnson	Dr. Randolph
Nov. 19.	" Hagner, 1824 19th St.....	" Parker.....	" Dunlop
Dec. 3.	" Key, 1716 H St.....	" Kerr.....	" Miller
Dec. 17.	" Kerr, 1742 N St.....	" Morse.....	" Parker

THE GEORGETOWN CLINICAL SOCIETY, organized about six years ago, has a membership of 20 active members limited to graduates of the Medical Department of Georgetown University. Meetings are held at the University Club on the second Tuesday of the month. The officers are: President, Dr. Ralph A. Hamilton; Vice President, Dr. Jos. Mundell; Secretary-Treasurer, Dr. J. Russell Verbrycke, Jr. The schedule for the balance of this season is as follows:

April 13. Host, Dr. Martell; paper by Dr. J. R. Verbrycke, Jr., on Gastric Ulcer; and election of officers.

May 14. Host, Dr. Larkin; essayist, Dr. Martell.

May (date not decided upon), annual smoker.

MEDICAL AND SURGICAL SOCIETY. April 19, Dr. Stuart McGuire, of Richmond, Va., will read a paper.—W. W. W.

THE SECRETARIES of the other Medical Societies of this District are reminded that the ANNALS will publish the schedules of their meetings for the coming season.

THE MONTGOMERY COUNTY (MD.) MEDICAL SOCIETY will meet on Tuesday, April 16, at Dr. Bullard's Sanatorium, Chestnut Lodge, Rockville. Business meeting at 11 A. M.; dinner at 1 P. M. to the Society by Dr. Bullard, and scientific meeting at 2 P. M. Dr. J. Dudley Morgan, retiring President, will read his presidential address; there will also be a paper by Dr. L. L. Lumsden, of the U. S. P. H. and M. H. S., on "The Prevention of Typhoid Fever;" a paper is expected from Dr. H. H. Young, of Baltimore, President of the Medical and Chirurgical Faculty of Maryland, on "The County Health Officer and his Responsibilities." The Secretary of the Society is Dr. John L. Lewis, Bethesda, Md.—W. W. W.

GARFIELD HOSPITAL.—The Willard Memorial Building is rapidly nearing completion. This much needed addition to the hospital provides charity beds for 54 white and colored women, and 25 beds for obstetrical cases. The building is modern in

every respect, four stories high; the basement will be fitted up for outpatients, and the dispensary work of the hospital will be resumed. The second and third floors are wards for white and colored women. The fourth floor will be devoted to obstetric work entirely and will fill a long felt want. The old Nurses' Home, in the administration part of the hospital, being inadequate to accommodate the nursing corps, the two houses on Eleventh Street, recently acquired by the hospital, have been fitted up as an auxiliary home.—W. W. W.

COMMITTEE ON PUBLIC INSTRUCTION IN MEDICAL MATTERS.—The Medical Society has appointed a permanent Committee on Public Instruction in Medical Matters: Dr. Tom A. Williams, Chairman; Dr. Elnora C. Folkmar, Secretary; and Drs. N. P. Barnes, Walter A. Wells, Wm. J. Mallory and B. M. Randolph; and has appropriated fifty dollars for the expenses of the committee for this season.

Two lines of public instruction in medical matters are being undertaken: one, the giving of popular lectures at the Public Library on medical subjects by experts from the Departments or from outside the District. The other is the publication of medical articles contributed by members of the Medical Society in the Sunday issues of the city papers. During the month of February four lectures were given. February 1, Dr. W. D. Bigelow, of the Bureau of Chemistry, Department of Agriculture, on "Pure and Adulterated Foods." February 8, Dr. A. M. Stimson, of the Hygienic Laboratory, on "The Mad Dog and Its Bite." February 15, Prof. Charles Wardell Stiles, of the Public Health and Marine Hospital Service, on the "Hookworm Disease," and February 29, Dr. L. L. Lumsden, also of the Hygienic Laboratory, on "The Prevention of Typhoid Fever." For the remainder of the season lectures are planned for the first and third Thursday of each month.

Three medical articles were published during February. Sunday, February 4, "The Care of the Eyes of Children," in the *Washington Post* and the *Washington Herald*. February 18, "Safeguards of Childhood," in the *Washington Post*, the *Washington Herald* and the *Sunday Star*. February 19, "The Nose, the Gateway of Life," in the *Washington Herald* and the *Sunday Star*. This article was published the next day in the *Washington Times*. These articles are being reprinted by the Committee on Public Health Education of the American Medical Association in the papers of several of the States, for example, Utah, Missouri, New York and Texas. Dr. Wm. J. Mallory has been named by the committee as editor of the articles.—E. C. F.

The Committee on Public Instruction in Medical Matters believes that a proper understanding by the public of the aims of

the medical profession and the good that it does will be furthered by medical men drawing the attention of their patients and friends to the articles now appearing in the Washington Sunday papers under the name of the Medical Society. Members are asked to send to Dr. Mallory articles of 1,200 words or even short paragraphs on topics likely to further the interests of the public and the profession in the conservation of human health. To draw attention to the evils of charlatanry is ever to be kept in mind. The pretensions of the unscientific need exposure.—T. A. W.

IMPORTANT ANNOUNCEMENT.—The Public Instruction Committee is desirous of the coöperation of other members of the Medical Society. Those who feel that they have anything important to say which could be embodied in the articles appearing in the Sunday papers are asked to write this in a form suitable for public understanding, and send it to a member of the committee with a view to publication. This should be done, if possible, early, and by all means by the middle of May, so that arrangements may be made in advance for the summer. The following subjects particularly demand consideration:

1. Dirt and disease. 2. Insanitary houses and disease. 3. Dangers of certain occupations. 4. The defense against bacteria. 5. Facts about foods. 6. Uses of exercise. 7. Exercise for women. 8. Physical hygiene for girls. 9. Evils of self drugging. 10. Constipation. 11. Summer complaint. 12. What to guard against in summer. 13. What to guard against in winter. 14. The increase of pneumonia. 15. The cause and prevention of colds. 16. Medical inspection of schools. 17. Medical frauds. 18. The bone setter. 19. The electrician. 20. The psychic fraud. 21. Lies about lost virility. 22. The district nurse and her function. 23. How to feed the baby. 24. Hygiene for children in summer. 25. Mind and body. These articles afford a good opportunity to show the public the evils springing from the false hygiene taught by the quacks.

PAPYRUS FIBERS; a translation.—A letter has been received from Dr. Carl H. von Klein, of the John Crerar Library, Chicago, stating that the publication of the translation depends upon his getting 1,000 subscriptions at \$5.00 each. A strong plea is made for him and the work in *Surgery, Gynecology and Obstetrics*, for January, 1912, page 94.

WHY DIGITALIS SOMETIMES FAILS.—The Hoffman-La Roche Chemical Works, New York City, has had made a compilation of extracts from writings of authors and published it in pamphlet form; has sent a copy to the Editor and asks a notice of it. The

pamphlet is too long for the ANNALS to republish it, and those who desire copies can obtain them from the publisher at the above address.

ASSISTANT SURGEON PUBLIC HEALTH AND MARINE HOSPITAL SERVICE.—Candidates for appointment to this position will be examined April 8, at 3 B street S. E., Washington, the Headquarters of the Bureau. Those who are interested can obtain full information by applying to the Surgeon General of the Service at the above address.

SEVENTH INTERNATIONAL TUBERCULOSIS CONGRESS will be held at Rome, Italy, April 14–20, 1912. The General Secretary and Treasurer is Prof. V. Ascoli, 36 via Lucina, Rome.

DR. JOHN W. WAINWRIGHT has purchased the *American Practitioner and News*, of Louisville, Ky., and the *New England Medical Monthly*, of Boston, Mass., and will combine these two journals into one, giving the new journal the title of "*The American Practitioner*," incorporating, etc., and issue it from New York city monthly, the first number appearing March, 1912.

JOURNAL OF JEFFERSON CO., PA., MEDICAL SOCIETY, a new monthly journal, the first number, January, 1912.

THE BY-LAWS OF THE MEDICAL SOCIETY, as reported by the Committee on the same, November 1, 1911, were adopted by the Society, January 3, 1912, with the following alterations:

Section IV; Essays; line 5, change "five" to "seven."

Section VIII; Hospitals, &c.; par. 2, instead of "Physicians to the Poor," read "the Board of Charities." Strike out paragraphs 3 and 4 and advance paragraphs 5 to 10 to 3 to 8.

Section IX; Fees; par. 8; strike out all after the word "patients."

THE HOT SPRINGS RESERVATION, ARKANSAS.—Dr. H. M. Hollock has made a report, as Medical Director of the Reservation, to the Secretary of the Interior, who is legally in control. The report is accompanied by a general circular of information in regard to the Springs. The circular as well as the report would be of interest to any physician who contemplates sending patients to the Springs, and can be obtained on application to the Secretary of the Interior, Washington, D. C.

THE FOLLOWING LETTER of December 22, 1911, from Major Lynch, Secretary of The Association of Military Surgeons of the United States, has been received and ordered to be published:

"In accordance with a resolution passed at the Twentieth Annual Meeting of the Association of Military Surgeons of the United States, held at Milwaukee, Wisconsin, from September 26th to 29th, 1911, I have the honor to communicate with you with a view to promoting local symposia on military hygiene, sanitary organization and supplies during the present winter. The purpose of such courses would be a patriotic one in that an attempt would be made to show the doctors of the country how they could render efficient service in time of war. Moreover, it appears probable that the courses could be made extremely interesting.

"For any course of this character which can be arranged the Association will attempt to secure an instructor, either a medical officer of the regular establishment or of the organized militia. In fact, it may be safely taken for granted that instruction of this character can be provided for in almost any part of the country.

"I desire to request you to bring this to the attention of the members of your association.

"This letter is sent to the American Medical Association and to all the State societies."

PUBLIC HEALTH LECTURES. THE WOMAN'S CLINIC.—The months of January and February have demonstrated that The Woman's Clinic in adding an Educational Department has filled a want in the District of Columbia. Forty lectures on matters of personal and public health were given; 5 were under the joint auspices of the Medical Society and the Clinic, and 13 under the joint auspices of the Clinic and the District Chapter of the Red Cross. All were approved by the Committee on Public Health Education of the A. M. A. Three were given to normal students, 8 to troops of Boy Scouts, 7 to parents and teachers associations, 6 for the D. C. Federation of Women's Clubs, 11 to mothers and teachers, and 5 to the general public. The average attendance at the lectures was 60; aggregate attendance for the two months 2,400. The titles of the lectures and names of the lecturers were as follows:

Dr. W. D. Bigelow, "Pure and adulterated foods." Two lectures.

Dr. S. L. Carson, "The circulation of the blood and the control of hemorrhage." "First aid in the treatment of wounds." "Dislocations and fractures." "The structure and functions of the human body." Five lectures.

Dr. E. B. Copeland, "Danger signals in childhood." Two lectures.

Dr. E. C. Folkmar, "How to tell children the story of the origin of life." "The story of the renewal of life." Six lectures.

Dr. John A. Foote, "First aid in rescuing the drowning." One lecture.

Dr. A. F. Foye, "Colds and their relation to diseases of the eyes, ears, nose and throat." Two lectures.

Dr. C. I. Griffith, "First aid in cases of poisoning." One lecture.

Dr. D. P. Hickling, "First aid in emergencies." One lecture.

Dr. I. H. Lamb, "First aid in the treatment of burns." One lecture.

Dr. L. L. Lumsden, "The prevention of typhoid fever." One lecture.

Dr. Mary O'Malley, "Care and management of nervous children." One lecture.

Dr. W. P. Reeves, "First aid in emergencies." One lecture.

Dr. L. H. Reichelderfer, "First aid in outing accidents." "Dislocations and fractures." Two lectures.

Dr. A. A. Snyder, "First aid rules for the treatment of wounds." "The human body." "The circulation of the blood and control of hemorrhage." Three lectures.

Dr. C. W. Siles, "Hookworm disease." One lecture.

Dr. A. M. Stimson, "The mad dog and his bite." One lecture.

Dr. L. H. Taylor, "First aid in sprains, dislocations and fractures." "The structure of the human body." "The circulation of the blood and control of hemorrhage." "First aid in the treatment of wounds." "First aid in states of unconsciousness; fainting, apoplexy, heat exhaustion and alcoholism." Five lectures.

Dr. A. P. Tibbets, "First aid in emergencies." One lecture.

Dr. T. A. Williams, "Nervousness in children and how to prevent it." Five lectures.

RECENT PUBLICATIONS BY WASHINGTON PHYSICIANS.

J. F. Anderson and Joseph Goldberger: The relation of so-called Brill's Disease to typhus fever; an experimental determination of their identity. Reprint from Public Health Reports, No. 7.

S. H. Ayres: Counting apparatus for litmus plates for use with gelatin plates. *Jour. Amer. Pub. Hlth. Assn.*, Dec. 1, 1911. Abstracted in *Jour. A. M. A.*, Feb. 17, 1912, page 514.

H. G. Beyer: International hygiene exposition at Dresden, 1911. *Military Surgeon*, Feb. 1912.

W. P. Carr: Crile's researches in regard to shock. *N. Y. Med. Jour.*, Feb., 1912.

L. E. Cofer: Advantages of National Quarantine. *N. Y. State Journ. Med.*, March, p. 123.

C. B. Conklin: Etiology and pathology of acute rheumatism. *Virginia Med. Semi-Mo.*, March 8, 1912, page 584.

C. F. Craig: Important factors in prophylaxis of malarial fevers. *Southern Med. Jour.*, Feb., 1912.

V. Dabney: Vaccine therapy in diseases of ear, nose and throat. *N. Y. Med. Jour.*, Feb. 10, 1912.

M. O. Dumas: Ocular complications of certain constitutional diseases. *Jour. Nat. Med. Assn.*, 1912, page 8.

L. Eliot: The value of vinegar in obstetrical work. *Virginia Med. Semi-Mo.*, Feb. 9, 1912, page 535.

S. I. Franz: New phrenology. *Science*, March 1, 1912, page 321.

W. H. Frost: Epidemic cerebro-spinal meningitis. Reprint from Public Hlth. Reports. No. 69.

H. A. Gardner: The decoration of the interior of hospitals and public buildings. *Jour. A. M. A.*, Feb. 3, 1912, page 338.

Carl Henning: Abstract of his paper on headaches. *Delaware State Med. Jour.*, Jan., 1912, page 28.

J. J. Kinyoun: The influence of the carrier in the management of institutional diphtheria. *Science*, Feb. 9, 1912, page 240.

J. J. Kinyoun and L. V. Deiter: A bacteriological study of the milk supply of Washington, D. C., *Science*, Feb. 9, 1912, page 231.

H. T. A. Lemon: Cerebral concussion. *Internat. Jour. Surgery*, Nov., 1911, page 437.

L. L. Lumsden: The causation and prevention of typhoid fever, with special reference to conditions observed in Yakima County, Washington. Public Health Bull., No. 51, Nov., 1911.

G. W. McCoy and C. W. Chapin: A plague-like disease of rodents caused by *Bacterium Tularensis*. *Jour. Infect. Dis.*, January, 1912.

W. J. Manning: A finger guard. *Jour. A. M. A.*, March 2, 1912, page 628.

G. B. Miller: Epilepsy and pregnancy. *Amer. Jour. Obstet.*, Feb., 1912; abstracted in *Jour. A. M. A.*, March 2, page 662.

J. R. Mohler: Serum diagnosis of glanders. *Science*, Feb. 9, 1912, page 238.

W. C. Moore: The symptomatology and diagnosis of angina pectoris. *Jour. A. M. A.*, Feb. 24, 1912, page 540.

M. G. Motter and M. I. Wilbert: Digest of comments on the Pharmacopœia of the U. S. and National Formulary, for 1909.

H. J. Nichols: Immediate clinical results of use of salvarsan in the army. *Military Surgeon*, Feb., 1912. Also: The present status of salvarsan therapy in syphilis. *Journ. A. M. A.*, March 2, 1912, page 603.

C. A. Pfender: The prophylactic value of instruction of children in the elements of physiology of sex. *Texas State Jour. Med.*, Feb., 1912, page 269. Abstracted in *Jour. A. M. A.*, March

2, page 658. Also: Two cases of tuberculous meningitis in infants. *Virginia Med. Semi-Mo.*, March 8, 1912, page 573.

L. H. Reichelderfer: Venereal prophylaxis. Abstracted in *Delaware State Med. Jour.*, January, 1912, page 28.

Wm. Salant: The action of drugs in pathological conditions. *Jour. A. M. A.*, Jan. 27, 1912, page 244.

A. R. Shands: Atrophic arthritis. *Surg., Gynecol. and Obst.*, February, 1912.

G. W. Stiles: The bacterial content of oysters in the shell in storage. *Science*, Feb. 9, 1912, page 238.

P. F. Straub: Sanitation of maneuver camp at San Antonio, Texas. *Military Surgeon*, Dec., 1911. Also: Handbook for medical officers in the field. Second edition; 186 pages; illustrated. Price, \$1.50.

J. W. Trask: Digest of laws and regulations of various States relating to reporting cases of sickness. *Bull. U. S. P. H. and M. H. S.*, No. 45, July, 1911.

G. T. Vaughan: Lane operation for chronic constipation. *Surg., Gynecol. and Obstet.*, Feb., 1912.

W. A. Wells: The non-surgical treatment of chronically discharging ears. *Jour. A. M. A.*, Feb. 3, 1912, page 325.

Oscar Wilkinson: Basilar headaches and neurasthenia of ocular origin not usually recognized. *Va. Med. Semi-Mo.*, Feb. 23, 1912.

C. S. White: Richter's hernia. *N. Y. Med. Jour.*, Jan. 20, 1912, page 439.

T. A. Williams: Two cases of poliomyelitis mistaken for neuritis. *Boston Med. and Surg. Jour.*, Jan. 11, 1912. Also: Hysterical rabies. *N. Y. Med. Jour.*, Jan. 20, 1912, page 439. Also: Origin of torticollis, case showing professional dyskinesia. *N. O. Med. and Surg. Jour.*, Jan., 1912. Also: Differential diagnosis of cases with affections apt to be mistaken for cerebral tumors. *Arch. Diagnosis*, Oct., 1911; abstracted in *Virginia Med. Semi-Mo.*, Feb. 9, 1912, page 543. Also: Remarks on diagnosis of poliomyelitis with misleading symptoms. *Old Dom. Jour. Med. and Surg.*, Feb., 1912, page 73.

PERSONAL NOTES.

Dr. C. C. Craft has been appointed Resident Physician at Casualty Hospital.

Dr. T. D. Crothers, of the Walnut Lodge Hospital, Hartford, Conn., has an article entitled "A forecast of the evolutions and revolutions in medical education" in the *Alienist and Neurologist*, Nov., 1911.

Dr. J. Ryan Devereux, formerly a member of this Society, has

been appointed a School Commissioner of Montgomery Co., Md.

Early, the leper, at last accounts was in Tacoma, Washington.

Dr. S. G. Evans, Surgeon, U. S. Navy, has been ordered to the Naval Medical School.

Dr. Chas. M. Gandy, Lt. Col., Medical Corps, U. S. A., has been relieved from duty in the Philippines and ordered to duty in the office of the Surgeon General, U. S. A.

Dr. Edmund K. Goldsborough died March 14.

Dr. L. O. Howard, Chief of the Bureau of Entomology of the Department of Agriculture, is a delegate to the centennial of the Philadelphia Academy of Science.

Dr. Ales Hrdlicka, Curator of Physical Anthropology of the U. S. National Museum, has been appointed the representative of the Smithsonian Institution at the 18th International Congress of Americanists that meets in London May 27 to June 1. He is also a representative of the United States.

Dr. M. W. Ireland, Lt. Col., Med. Corps, U. S. A., is relieved from duty in the office of the Surgeon General, U. S. A., and ordered to San Francisco, Cal. He represented the Army Med. Dept. at the meeting, Feb. 26, at Chicago, of the Educational and Legislative Conference of the A. M. A.

Dr. H. L. E. Johnson has been appointed on the Committee to advise with the National Red Cross.

Drs. Jefferson R. Kean, U. S. A., and P. M. Rixey, U. S. Navy, have been appointed on the Committee to consider the mode of commemorating the completion of the Panama Canal.

Dr. J. E. Lind has been appointed Resident Physician at the Washington Asylum Hospital in place of Dr. J. J. Madigan, who has gone to Atlanta, Ga., to practice.

Dr. F. S. Nash, U. S. Navy, formerly a member of this Society, has been ordered to the Naval Hospital, Newport, R. I.

Dr. Wm. P. Reeves has been elected a member of the Board of Trade.

Dr. C. W. Stiles has been detailed to address the Association of Elementary Schools, S. C., on School Sanitation, March 30.

Dr. Paul F. Straub, U. S. A., has been ordered to the Philippines.

Dr. G. B. Treble, Passed Asst. Surg., U. S. Navy, has been ordered to the Naval Hospital, Washington.

Dr. R. H. Van Ezdorf, Passed Asst. Surg., U. S. Navy, formerly a member of this Society, is lecturing on cerebro-spinal meningitis in Louisiana, the lectures illustrated with motion pictures; by request of the State Board of Health.

Dr. Cressy L. Wilbur is Chairman of the Committee on Nomenclature and Classification of Diseases.

Dr. H. W. Wiley has resigned from the Department of Agriculture.

Dr. Yeager has resigned as Resident Physician at Casualty Hospital and been appointed to the Resident Staff of the German Hospital, Brooklyn, N. Y.

Mrs. Helen Miller Young, wife of the late Dr. James T. Young, a member of this Society, died at The Wyoming March 6. Was buried at Oak Hill Cemetery. She was from Constableville, Lewis Co., N. Y.

WASHINGTON MEDICAL ANNALS

TONSILLECTOMY, WITH CONSIDERATION OF ITS COMPLICATIONS.*

By CHARLES W. RICHARDSON, M. D., Washington, D. C.

Tonsillectomy, or complete removal of the tonsil with intact capsule is the operation which has grown in favor during the last ten years as an operation to replace the more incomplete one of tonsillotomy. Through tonsillotomy the tonsils were only partially removed in the majority of cases, more or less of a mass of tonsillar tissue remaining as a stump, according to the amount of adhesion to the pillars and the type of tonsil upon which the operation was attempted. Some types of tonsils, especially the submerged type, were almost impossible of removal through the operation of tonsillotomy. Tonsillectomy is a more serious operation than tonsillotomy and, therefore, requires more thorough care in its performance, more careful technique, and more thorough post-operative treatment. Tonsillectomy, barring the one complication of hemorrhage, is more liable to be attended with serious complication than tonsillotomy. Tonsillectomy is more apt to be attended with a sharp post-operative reaction and high temperature, and is attended during the post-operative stage with decidedly more pain than tonsillotomy. Nevertheless, from the fact that the tonsils are more completely and thoroughly removed and that the capsule is removed intact with the tonsil, thus preventing the possibility of redevelopment, the operation of tonsillectomy has rapidly gained in favor until it has practically replaced the older operation of tonsillotomy in the United States.

The operation of tonsillectomy requires as much care in the preparation of the patient as any major surgical operation. It would be wise, in all cases of children, to make culture of the

* Read before the Medical Society, March 20, 1912.

fauces in order to eliminate the possibility of the presence of Klebs-Loeffler bacilli. Those individuals who have had frequent attacks, or recent attacks, of follicular tonsillitis should also have their urine examined. It is a well-known fact that follicular tonsillitis is occasionally attended with acute nephritis of a mild type, but even at times becoming a serious menace to life.

It is well to remember that the tonsil within its capsule lies in a bed of loose areolar tissue upon the superior constrictor muscle and between the anterior and posterior pillars, having no attachments whatever except at the point of entrance and exit of the artery, vein, and lymphatics. Occasionally we find pathological adhesion between the pillars and the tonsils. The tonsil is retained externally by the mucous membrane, which covers its faucial surface. This mucosa, as it approaches the pillars, divides into two layers, one of which dips down between the tonsil and the pillars and becomes continuous with the capsule, while the other passes from the faucial surface of the tonsil, onward over the pillar, in continuity with the general faucial mucosa. Thus, from the anatomical relationship of the tonsil, it can be readily appreciated, if one simply break through the mucosa which passes from the faucial surface of the tonsil on to the anterior pillar of the fauces, how easily the tonsil within its capsule may be shelled out of its bed. Care must be exercised in this procedure, by whatever method this eradication is attempted, that the capsule of the tonsil must not be penetrated, as through this the operation becomes exceedingly difficult.

Many different methods have been suggested and employed for the initial procedure of separating the pillars and all have their strong advocates. These methods are the dissection with sharp knives, scissors, or blunt dissectors. The tonsil is usually drawn out from its bed by means of a volsellum forceps, and, after the tonsil has been more or less completely separated, the operation is completed through the mass being encircled by a snare or a tonsillotome and then completely removed. These methods of removal are extremely satisfactory and accomplish most excellent results. Every operator should accept that method which to him seems logically the best to accomplish the most satisfactory result and which to him is the most convenient to perform.

From the anatomical relationship of the tonsils and the seeming ease with which the breaking through of the frail layer of mucosa passing between the tonsil and the anterior pillar may be accomplished, it became evident to others—and to me—that the use of instruments for this purpose seemed superfluous. Having broken through this mucosa, the subsequent shelling out of the tonsil became quite as simple through nature's armamentarium as through instrumentation. The so-called finger dissection of

the tonsil is as old as Celsus and has been handed down through all the ages. In the finger enucleation of the tonsil the index finger is gently insinuated between the anterior pillar and the tonsil at its upper third until there is a giving way of the tonsillar-pillar mucosa. At other times, it may be more convenient to enter between the top of the velar lobe and pass behind this into the fossa triangularis. With the breaking through of this fold of mucosa there is the distinct sensation as though one were entering a free cavity. The finger is then swept behind the capsule and the tonsil is quickly liberated in all directions from its bed. Occasionally adhesions formed between the posterior pillars and the tonsil requiring careful work in order to avoid injury to the posterior pillar. When the tonsil is free, except the extreme lower portion, it is grasped by firm forceps and evulsed. In this operation the work is done with the pulp of the finger and not through the use of the finger nail. There is no more need of the finger nail in the separation of the pillars from the tonsil than there is in the use of the knife, blunt dissectors, or the scissors.

The advantages which the finger enucleation of tonsils have over the other methods are its simplicity, the ease with which it can be accomplished, and the marked freedom from hemorrhage. In referring to the freedom from hemorrhage, I do not mean the absence of hemorrhage during the operation, but to the post-operative hemorrhage which is frequently so alarming, and at times dangerous to life. Since I have been operating exclusively by this method I have had no post-operative hemorrhage, and, as this extends over a period of five years and comprises nearly one thousand operations on tonsils, both in adults and children, I feel that I can speak with considerable assurance of it being deprived of this serious complication of tonsillectomy. During the same period I have been aware of at least a dozen serious hemorrhages occurring in the practice of my colleagues in which the operation was done by the other methods, including the so-called bloodless methods. The removal of adult tonsils through this method is quite as easy as it is in children. At the meeting of the American Laryngological Association three years ago I was asked during a discussion what percentage of tonsils, all comers, I could remove by this method, to which my reply was 80 per cent. To the same question asked me to-day, I would say 100 per cent.

The conditions for which the removal of tonsils is required or suggested, are as follows:

1. Enlarged tonsils, either of the hypertrophic or hyperplastic type, which interfere with the breathing or the proper nutrition of the child, or when the diseased condition offers a menace to the well being of the individual.

Moderately enlarged tonsils which seemingly cause and maintain infection of the cervical lymphatic glands.

2. Tonsils subject to frequent acute infection, such as acute lacunar or follicular tonsillitis, and peritonsillar abscess.

3. Chronic diseases of the tonsils, such as chronic lacunar diseases, mycosis tonsillaris, growths, and calcareous concretions in the tonsils.

4. To prevent and mitigate certain constitutional diseases through which the tonsils are the supposed portal of entry, such as rheumatism, gout, tuberculosis, pleurisy, nephritis, endocarditis, bronchitis, pneumonia, appendicitis, meningitis, and hyperthyroidism.

Complications which may ensue as a result of tonsillectomy.—It is a great misfortune that operators fail to report the complications of this operation.

The most frequent and most dreaded complication of tonsillectomy is *post-operative hemorrhage*. Lindley Sewall reports 50 cases of serious hemorrhage, with 19 deaths.¹ As this report is the most recent that I have read, it probably summarizes all the serious bleedings and deaths reported in previous papers.

Another serious complication is *hyperpyrexia*, without known cause. An interesting case of this type is reported by Dr. D. J. G. Wishart.² The patient was a girl 18 years old, presenting no symptoms other than those of enlarged tonsils and adenoids. The tonsils were slightly inflamed, coated with secretion, and the follicles were filled with cheesy detritus. The operation was done under general anesthesia, being attended with only moderate hemorrhage. Shortly after the operation the temperature rapidly rose a degree per hour until it reached 107°, and the patient died twelve hours after the completion of the operation. No post-mortem.

It has been my unpleasant experience to have had almost an identical case with that reported by Dr. Wishart. During March, 1909, I operated upon a child four years of age for enlarged tonsils and adenoids. When the child was brought up to the operating room I was told that the patient had a temperature of 99.4°. I refused to operate and proceeded with several other operations upon other patients. After finishing my clinic, I visited the patient in its room and there was won over by the parents, who were anxious to have the operation done, to proceed with the operation. The operation was a remarkably easy and almost bloodless one and the patient was sent to its room in good condition. At four o'clock I was notified that the temperature was 102°, and, from that time, its temperature rose steadily until it registered 107.2° at ten P. M. The child died at 11:15 P. M. None of the treatment instituted influenced the upward tendency of the temperature. An autopsy was made in the early afternoon of the

day following its death by Dr. L. W. Glazebrook. There was no blood in the stomach or intestinal tract and all organs of the body presented an absolutely normal macroscopic appearance. We were quite surprised at the findings and embarrassed at our inability to ascertain the cause of death. This gives two cases reported of death from hyperpyrexia, probably autoseptic.

Septic infarct of lung.—I have had several cases of this character reported verbally to me, but find none in the literature. Two years ago in June I operated upon a vigorous, rather large man of 45 years of age for the removal of both tonsils. The convalescence was slow. A moderate fever continued for six days. On the seventh day the patient returned to his home and was lost sight of by me for nearly ten days, although under the constant care of his family physician. When I saw him again in consultation, I found the patient a very ill man. He was running a septic temperature, coughing constantly, complaining of great pain in the base of his right lung, and presenting a very anxious and distressed countenance. A slight area of dullness, with some moist rales could be made out over the base of the right lung posteriorly. The patient was taken to his home in a distant State, when several weeks later the full evidence of an abscess of the lung developed, which was later operated upon and drained with a favorable issue.

I have also had the misfortune to have another case of the same character this winter. In December I operated upon a young married woman 24 years of age for hypertrophied tonsils. The case was simple in operation and attended with very little hemorrhage. The patient's throat was very sore for several days and the convalescence was slow. Ten days after the operation she developed a severe and harassing cough; the temperature had a moderate septic curve. Physical signs were negative over chest. On the thirteenth day the cough was more annoying and was frequently of a paroxysmal character. She now began to expectorate a large quantity of purulent, very offensive secretion. She complained greatly of an intensely offensive odor whenever she coughed. Examination of sputum, which was very offensive in odor, demonstrated it to be largely made up of pus cells and the infecting organism to be a streptococcus. Physical examination demonstrated a small consolidation between the second and fourth ribs on the right side, with small mucous râles. On the fifteenth and sixteenth days she had great pain in upper portion of right lung. This pain recurred again on the twentieth day of illness. The patient was put on urotropin, and, in the course of three weeks, made a complete recovery, attended by a gradual and complete subsidence of all symptoms.

Le Play³ reports an exceedingly interesting case, when a child who had a double tonsillotomy done some eight days before

being brought under his observation, was thought to have diphtheria and antitoxine was administered. Culture examination proved the case to be of a non-diphtheritic character. Subsequently the child, a patient eight years of age, developed pulmonary symptoms. Physical examination showed in the left lung distinct dullness, with an expiratory egophonic souffle. A pleurotomy was done and an abscess cavity drained. Culture of the pus demonstrated the presence of pneumococci. This case appears to be of embolic origin.

General sepsis.—Mild sepsis, enduring for a few days, is a frequent complication of tonsillectomy, but the more severe types of general sepsis are quite infrequent, if one form an opinion from the reported cases. It is not strange that sepsis follows such an operation when we consider the fact that such large open wounds are constantly bathed in such an abundant flora as is contained in the buccal cavity, but rather strange that it does not occur much more frequently in its severe forms.

Dr. L. W. Dean,^{3*} in an excellent article in the *Laryngoscope*, narrates three cases of sepsis following tonsillectomy, viz: A case of death from sepsis following tonsillectomy; a case of cerebral thrombo-sinusitis following tonsillotomy; a case of gangrene of muscles of the neck following tonsillectomy. The length already attained by this paper prevents me going into detail about these interesting cases.

Ballinger⁴ reports two severe cases of streptococcus infection.

Pierce⁵ reports a serious case of infection resulting in a permanent torticollis following a tonsillectomy, with injury to pharyngeal muscles.

Dr. C. E. Deane⁶ reports two cases of severe sepsis occurring in his practice.

Emphysema.—Subcutaneous surgical emphysema is fortunately a rare complication of tonsillectomy.

An interesting case of this character in which the emphysema was very extensive is reported by Dr. Benjamin D. Parrish⁷ of Philadelphia. He does not give the name of the operator in his article, or the hospital in which the operation was performed. He states that the patient left the operating room in good condition. The operation was attended with a little more bleeding than is usual in such operations. He states that the tonsils were quite adherent and in freeing them a small buttonhole was made in the lower part of the posterior pillar on the left side. The orderly and nurse noticed on the elevator that the patient seemed to be struggling for breath and also that his neck and face were swelling rapidly. He states that, when he reached the patient, the breathing was rapid and shallow, the face was livid and lips cyanosed. The entire neck was puffed out so that the line of the jaw was completely obliterated. The emphysema affected

the face and right eyelid and emphysematous crackling extended over the anterior portion of chest as far down as the last rib. By flexing the neck and opening the mouth the breathing was restored and further extension of the emphysema prevented. The patient made a good recovery, with gradual absorption of the emphysema. I had a mild emphysema to occur in my practice also in a male adult. The emphysema followed after a double tonsillectomy and involved only the right side of the neck. In this case the emphysema was noted about an hour after the operation, and extended on the right side of the neck almost to the line of clavicle. There was only moderate swelling, but very distinct crackling. It subsided completely within forty-eight hours.

Infection of the lungs and serous membranes.—The occurrence of pneumonia and pleurisy as sequelae of tonsillectomy is not usually reported, but there is a sufficient number of cases incidentally reported that indicate that this is not an infrequent complication. In my own practice, covering now some years, I have had two cases of pleurisy, both of which recovered and one case of pneumonia which was fatal in its termination.

In a recent article, Eugene A. Crockett⁸ states that in the Massachusetts Charitable Eye and Ear Infirmary, within the past few years, there had been two cases of ether pneumonia, one of which died.

Status Lymphaticus.—Dr. F. R. Packard⁹ gives the report of a case upon which he performed the operation of tonsillectomy which resulted in death, apparently due to status lymphaticus. The operation was done without incident of any kind whatever upon a female child of three-and-one-half years of age. He states "the child was apparently a perfectly normal little girl, of the average size and healthy appearance, except for a somewhat sallow complexion." Immediately after the operation, nor at any subsequent period, was there any bleeding. When coming out from under the ether, she vomited a small quantity of blood. The operation was done at one P. M.—at 4:30, 5:30, and 6:30 the child was examined and no bleeding noted. About 6:20 the little one's condition became very serious, temperature 100, respiration 36, and pulse rate 156. At 7 P. M. the child stopped breathing, for which no relief came, although tracheotomy was done. No autopsy was obtained. Packard states, "This case presents features which, to my mind, render it practically certain that the fatal result was due to the condition known as status lymphaticus. The child's death was certainly not due to hemorrhage nor could it be attributed to the method of administering the anesthetic or the quantity used. As to status lymphaticus so little is really known about it that, unless an autopsy had been obtained and an enlarged thymus gland found, it would be impossible to state

positively that this condition had been the cause of the child's death.

Dr. T. J. Harris¹⁰ reports a case of death from status lymphaticus, as also does Dr. E. B. Dench.

Amygdalotomy rash.—This complication rarely occurs as a sequel to the removal of the tonsils and is of no consequence, except for the anxiety it may cause. It usually appears from two to three days after the operation and appears either in a roseola, papular or erythematous form. It makes its initial appearance usually on the chest, abdomen or limb. It may or may not be attended by itching. It attains its maximum of intensity in a day or two and then rapidly disappears. It is usually attended by a slight elevation of the temperature. Dr. Wyatt Wingrave reports thirty-four cases of the rash. Dr. Edgar Forsyth¹¹ also reports cases in an excellent paper. I have had this rash to appear in four cases upon which I have operated. Dr. S. S. Adams reported it as occurring in one case upon which I operated while the patient was under his observation.

Local disturbances as sequelae of tonsillar operations.—There are a few cases reported of injury about the faucial region, less probably by far than actually occur, as many of these result from accident during operation and from faulty technique, therefore, the operator hesitates to report them.

Dr. Lindley Sewall in his paper reports two cases of tracheotomy which were necessitated on account of prolonged glottis spasm with collapse and cyanosis. Without giving the authority he also reports a case of torticollis and a case of retro-pharyngeal abscess.

Dr. I. Lederman¹² reports a unique complication in the formation of a *haematoma* in the fauces following a tonsillectomy. Dr. Lederman states that, shortly after the removal of the tonsil, blood began to extravasate under the mucous membrane until a large mass, nearly the size of a hen's egg, was found in the tissues of the palatine arch.

Dr. Francis Huber¹³ reports a case of lateral pharyngeal *abscess* occurring in a child two years old, following a tonsillectomy. Dr. D. van D. Hedge, of Plainfield, New Jersey, reported by Dr. F. C. Ard, has observed two cases of *torticollis* following tonsillectomy. The condition lasted two months in one patient and one month in the other. Condition ascribed to sepsis.

Injury to the *pillars*, and accidental *removal* of the *uvula* are not uncommon results of operative work for removal of the faucial tonsils. *Cicatrices* forming in the palatine arch, which more or less impair the movement of the velar curtain and *adhesion* of the anterior and posterior pillars to each other in the process of repair, are possible occurrences. These results

are not of any serious moment to the speaking voice, unless the injury is great, but are of decided moment to the singing voice or to the voice used for elocution purposes.

Dr. Hudson Makuen¹⁴ writes, in no hesitating terms, in regard to these conditions, as follows: "Seeing as I do many children having defects of voice and speech day after day for many successive weeks, I have, perhaps, a somewhat unusual opportunity for studying the local, as well as the general, effects of the operation under discussion, and I confess to you that I have been amazed at the apparent disregard for the surrounding structures with which much of this work is done. The sacrifice of one or more pillars of the palate and of the uvula seems not to give some operators any concern whatsoever and the results upon the voice and speech have been, in some cases, not only disastrous, but altogether irreparable."

Infection of the middle ear as a complication of tonsillectomy is an occasional occurrence, as all operators are aware, but I find no reports of such infection. To be sure, this complication is more apt to occur after operation for adenoids than tonsillectomy. *Infection of the cervical glands* is also another type of complication which is occasionally manifested, but, as it is looked upon by operators as only an incident in the cases, it is not usually reported.

Diphtheria.—A case of diphtheria following tonsillotomy is reported by August Caillé.¹⁵ This complication can only result in operating upon a patient who is a carrier. For this reason it would be wise to make cultures of the faucial secretions of all children upon whom the operation is to be done.

Oswald Levenstein,¹⁶ after an extensive review of the subject of diphtheria in connection with tonsillotomy, makes the statement that the mucous membranes of the mouth and nose lodge a considerable number of cocci spirilla and bacilli of many varieties; among the latter may sometimes be found virulent Klebs-Loeffler bacilli. He gives reports of cases of diphtheria ensuing after tonsillotomy. A case of gangrene, with death, is reported by Ter Kinle in a child of seven years, eight days after a tonsillotomy as reported by Dr. S. M. Bourack.¹⁷

In Crockett's article, previously referred to, he states, "The occurrence of twelve deaths in this city (Boston) and its suburbs in the last year and a half or two, following upon the removal of tonsils, as well as the occurrence of a large number of very considerable hemorrhages also fatal unless checked by experienced hands, would prove to my mind that it is not wise to advise such removal except on sufficient symptoms." Evidently these twelve cases of death referred to by Crockett have not been reported by the operators, neither can they be classified, as the reporter does not refer to the causes of death.

Also, as unclassified may be mentioned the case reported by Schuchardt¹⁸ of a case of sudden death following excision of tonsils, due to hemorrhage, asphyxiation or shock. The patient was a child thirteen years of age, of the lymphatic, chlorotic constitution, which died immediately after the removal of the right tonsil, the left having been previously operated upon. All methods of restoration were adopted, including tracheotomy.

Conclusion.—I have always been impressed with the apparent indifference with which the laity view the operation for the removal of the tonsils, and even a large part of the general medical profession, as though it were a simple operation that could not be attended with unpleasant sequelae or dangerous, even fatal, results. The facts which I have brought forward here, and which are of frequent occurrence, would not only indicate that it is a very serious operation, but also that it is an operation that may be attended with very serious, even fatal, complications. Tonsillectomy, therefore, should be considered a major operation and the patient should be prepared and surrounded with all care and attention, as in any major operation. The technique should be as thorough as it is possible to make it and the surgeon should be adept in and prepared to meet any emergency that may arise.

With such knowledge is it proper and wise to suggest this operation, as is so often done by the internist, with insufficient and inaccurate data, from a local standpoint, as a prophylactic measure? I believe that this point of view, as an overwhelming demand for the removal of the tonsils, is too often presented to the reluctant patient. I believe that a few general conditions probably have their portal of entry into the general system through the tonsils, but I would demand that in every individual case, the tonsil be first proved to be guilty before it is sacrificed. One must hold steadfastly in mind the fact when suggesting such a procedure under such conditions that we by this operation are placing the patient in danger of his life—probably a greater danger to his life than the probable remote infection.

BIBLIOGRAPHY.

1. Medical Chronicle, Manchester, July, 1911, p. 212.
2. Laryngoscope, February, 1909.
3. Archives Gen. de Med. Volume 2, p. 3280, 1905. ^{3*}Laryngoscope, July, 1910, p. 738.
4. Diseases of Nose, Throat and Ear, p. 416.
5. Transactions of Section of Laryngology and Otology, A. M. A., 1909, p. 109.
6. California State Journal of Medicine, 1909, p. 92.
7. The Laryngoscope, November, 1910, p. 1046.
8. Boston Medical and Surgical Journal, March 23, 1911, p. 414.
9. American Journal of the Medical Sciences, September, 1910, page 399.
10. Annals of Otology, Rhinology, and Laryngology, 1909.
11. New York Medical Journal, December 21, 1901, p. 1144.

12. Kentucky Medical Journal, December 15, 1911, p. 959.
13. Pediatrics, September 15, 1899, Volume VIII, p. 254.
14. Transactions of the American Laryngological Association, 1911, p. 223.
15. Archives of Pediatrics, 1894, p. 655.
16. Aertztliche Sachverständigen Zeitung, No. 7, 1900.
17. Archiv für Laryngologie und Rhinologie, B. 22, H. 2.
18. Archiv Internat. de Laryngol., d'Otol., et de Rhinologie, Jan., Feb., 1910.

Dr. R. R. Walker had enjoyed the paper, and had been especially interested in that portion dealing with the complications of tonsillectomy. He agreed with the essayist as to the popular lack of appreciation of the serious character of this operation; perhaps this misapprehension may be due to the frequent performance of tonsillotomy at the physician's office. The choice of the method of operation seemed to him to be a matter of personal preference; he himself prefers dissection with sharp instruments. Postoperative hemorrhage is the bugbear of the operator, because it is a complication that cannot be foreseen. Patients should be retained for a time in the operating room for ocular examination for hemorrhage; arterial bleeding may easily be controlled by catching the bleeding point; persistent oozing gives the most trouble, and while pressure will control, removal of the pressure dislodges the protective clot.

Dr. O. Wilkinson was interested in Dr. Richardson's remarks upon hyperpyrexia and excessive pain. When Dr. Wilkinson first undertook to do the operation of tonsillectomy he was surprised at the great amount of pain which follows the procedure; care in doing the operation does not obviate this feature. As to finger enucleation, he had not practiced this method except in selected cases; there is too much traumatism in penetrating the mucosa; moreover, after repeated old infections, finger penetration is very difficult. He has devised a little tonsillar forceps, which he had found useful in making the first incision and then for lifting the gland out of its bed. (He here exhibited the instrument.) He makes the incision with a dull knife. When the field of operation can be seen, it seemed to him more surgical to proceed always by dissection under observation. As to hemorrhage, this is the most serious complication and is at times difficult to manage. He had found the best method of checking hemorrhage to be by packing the fossa and stitching the pillars of the fauces over the packing gauze. As to the singing voice, tonsillectomy is more apt to change the voice than tonsillotomy; he would hesitate to perform the former operation upon a professional singer.

Dr. McKimmie said that it had been his good fortune to be associated with Dr. Richardson in the performance of many of the operations of tonsillectomy upon which the paper was based, and in none of Dr. Richardson's cases nor in his own cases had

there been serious hemorrhage. After the removal of the tonsil in its capsule there is every chance for the vascular ends to retract, and they do so. Finger dissection of the tonsil is a matter of special skill and it may not be possible for every one to acquire this skill. Dr. McKimmie laid stress on the needless sacrifice of tonsils, and asserted that the operation of tonsillectomy should not be done unless precise indications for it are present. When there is infection of the neck glands, and when there are repeated attacks of tonsillitis, then the removal of the tonsils is indicated. He agreed that the method of doing tonsillectomy is a matter of choice; with some operators the finger cannot be used in every case. The choice of a really useful grasping forceps is somewhat difficult.

Dr. Butler had enjoyed the paper. He was glad it had been read if only it would impress the Society with the fact that it is not always easy and safe to remove the tonsils. It seemed to him that the time has come when the pendulum is swinging back again from the extreme ruthlessness with which the tonsil has been treated; he is one of those who believe that the tonsils possess some desirable function for the human economy and that they are to be best treated by removing only so much as may be an obstruction to proper respiration and phonation and such portions as are actually diseased.

Dr. A. F. A. King said that while he is not a laryngologist he felt much interested in the subject presented by Dr. Richardson. He commended the paper very highly. He was particularly interested because Dr. Richardson had last year removed adenoids and the tonsils from Dr. King's son, the operation consuming only two and a half minutes. He had hoped that something would be said about the influence of diseased tonsils and adenoids upon intellectual development; this is an important feature in the consideration of these structures, but perhaps the essayist did not regard it as coming within the scope of his paper. There was some evidence in the paper and discussion that laryngologists suffer in the same way as gynecologists and obstetricians from changing fashions in their methods of procedure. Are laryngologists finding that they have been too enthusiastic over tonsillectomy? Statistics quoted in the paper gave tonsillectomy twelve fatalities in the city of Boston last year. There has recently been an epidemic of malignant sore throat in that city; did this epidemic contribute at all to the mortality following tonsillectomy?

Dr. Roy sends his patients to the laryngologist for tonsillectomy only after he has carefully studied the cases; he watches the behavior of diseased tonsils for a year or two, and if there are repeated attacks of tonsillar inflammation, or if the child suffers from persistent innutrition for which no other cause can

be found, or if there are repeated nondescript febrile attacks, then he feels justified in having the tonsils removed. Under such conditions he has never been disappointed in finding definite improvement of the patient after the operation. It seemed to him that this course should be pursued by every careful practitioner, and he did not think that over rash sacrifice of tonsils should be blamed on the family doctor.

Dr. Shands had been much interested Dr. Richardson's remarks about death from hyperpyrexia following tonsillectomy. Dr. Shands had had two such fatal cases following other operations upon small children. The first operation was the removal of a small lipoma from the back; there was no shock and no hemorrhage; but after eighteen hours the temperature rose rapidly to 107 and death soon followed. The only explanation that had occurred to him was that there had been some centric cause, some derangement of the heat mechanism. The other case was in a boy of 8 or 10 years of age, who had a fracture of both bones of the forearm with impaction. An open operation was necessary; it was done very simply and was over in twenty or thirty minutes. The operation was done at 9 A. M. and the boy was taken home at 6 P. M. At midnight the child was delirious with temperature of 104 and died in thirty-five hours with a temperature of 108.

Dr. S. S. Adams wished to speak from the standpoint of one who sees and has the care of many children and is often consulted merely about the question of whether the tonsils shall be removed or not. The former contention was that only the diseased part of the tonsil should be removed; but with enucleation there is no tonsillar tissue left. Another moot point is whether the tonsils are responsible for all glandular enlargements in the neck. He believes that the tonsils are responsible for some, but not all. This belief was borne out by the experience of seeing a house epidemic where three children had enlarged cervical glands, inflamed and tender, long after all three had undergone tonsillectomy. There had been a tendency to blame the operation for the condition in this instance, but the operation was so remote that he had had no hesitation in assuring the parents that the operation had nothing to do with the lymphadenitis. Of course no honest operator would remove a tonsil free from disease, and laryngologists should resist the request of parents to remove healthy tonsils to forestall future tonsillar trouble in their children. He has recommended tonsillectomy for very many children and has yet to see any ill effects. As to so-called bloodless operations, the quick operation looks bloody, but he doubted if more blood is really lost than could be extracted from the sponges of the slow operator. The operation is a boon where it is needed, but every case must be carefully considered before the operation is advised.

Dr. Richardson was pleased with the free discussion and appreciated the remarks of the speakers. Dr. Wilkinson had spoken of the great amount of traumatism caused by finger enucleation, but Dr. Richardson was unable to understand just what Dr. Wilkinson had meant; traumatism must be inflicted to remove a tonsil, but the amount of it depends upon the operator. Dr. Richardson felt certain that a skillfully done finger enucleation inflicts no more traumatism than a carefully done instrumental dissection. As to the difficulty of enucleating tonsils after peritonsillar abscess has occurred, this occurs at times, but thus far he has met with but two embarrassing cases requiring some instrumental assistance. He has been astonished at the ease with which in most instances the tonsil has been lifted from its bed. One advantage that finger dissection possesses over all other methods in adults, is the absolute security against secondary hemorrhage. If nothing else favored this method this one feature would make it desirable. Tonsillectomy and its influence upon singers' voices had been referred to; he believes that the operation should be done in such subjects with great care and precision, avoiding any injury to the pillars and exercising great care to secure healing without adhesions. He has done the operation in a number of public speakers and singers and in three cases the voice has been greatly improved. The reports of cases do not bear out Dr. Butler's remarks; the pendulum will not swing back to the preference for tonsillotomy as long as the majority of post-operative accidents follows tonsillotomy. With regard to Dr. King's remarks upon the influence of enlarged tonsils and adenoids upon mental development, of course when there is well marked aprosexia the operation should be done, and the adenoids also should be removed. When patients are referred by careful clinicians like Dr. Roy, of course the laryngologist proceeds with the operation without further question. He does not inveigh against the removal of diseased tonsils, but the ruthless removal of tonsils merely because they are tonsils is to be condemned. The tonsil should first be proven guilty before it is condemned.

THE SOULLESS CORPORATION.—Street Car Driver—Me and that off horse has been working for the company for twelve years now.

Passenger—That so? The company must think a great deal of you both.

Street Car Driver—Wall, I dunno; last week the two of us was taken sick, and they got a doctor for the horse and docked me. Gid-up there now, Betsy!—*New York Tribune*.

LESIONS OF THE NERVOUS SYSTEM IN PERNICIOUS
MALARIA, AND THE NEUROLOGICAL SEQUELAE
OF MALARIAL CACHEXIA.—ABSTRACT.*

By S. R. LAFORA, M. D. (Madrid), Histopathologist Government
Hospital for the Insane, Washington, D. C.

Pernicious malaria causes very variable neurological and psychical syndromes. The penetration of the parasite into the capillaries of the nervous system, with the probable production of toxins, gives rise to central or peripheral symptomatic complexes of the nervous system. Cases of pernicious malaria have been published with symptoms of multiple sclerosis; of a cerebellar nature; of bulbar paralysis; of paraplegia, hemiplegia and other paralyzes; of chorea; of amaurosis; and of polyneuritis. Mental syndromes have also been described by Kraepelin, Bethge and Pasmanik. The best pathological studies of involvement of the nervous system by malaria are those of Marchiafava, Bignami and Cerletti.

The pathogeny of these symptoms has been explained in many ways. The most modern idea is that the production of punctiform hemorrhages and thrombi, as well as degenerations of medullated fibers and vascular lesions, determine, according to their location, the various symptom complexes, which are due to the probable production of a toxin. The production of toxins has been much discussed, but the belief has recently become general that metabolic disturbances in the liver and other organs are caused by the influence of the malarial parasite, which gives rise to toxins. In the nervous system these substances cause different changes in a similar way to that of toxins (oleic acid?) in pernicious anemia. In this way also is explained the extensive malarial polyneuritis.

Three cases are reported here; two of pernicious malaria of a larvate course ending with comatose attacks and a case of malarial polyneuritis cured by quinine.

Case I;† a man 71 years old; for some years had had malarial infection from which he recovered. Was reinfected October, 1911. After a few days' treatment he apparently recovered. A month later he had anorexia, general malaise, edema of ankles; signs of cachexia, probably combined with a slow reaction of the circulatory apparatus. Two days afterwards the temperature rose to 104 in the morning; was 103 in the afternoon. He was unconscious; there was dysphagia; was comatose for two days, and then died. No special mental nor neurological symptoms were detected but the relapse of the disease assumed from the first a

*Read before the Medical Society of the District of Columbia, March 6, 1912. The complete article with illustrations and bibliography will appear in the *Jour. fuer Psychol. und Neurol.*, Leipzig.

† Resume of history by Dr. Schwinn.

hypertoxic character. At the autopsy a typical malarial spleen was found and the brain was very hard and hyperemic. The case was one of the comatose form of pernicious malaria ("accès comateux" of Laveran). The histological examination of the brain disclosed the bloodvessels filled with malarial parasites.

Case II;† a man age 51; arteriosclerotic dementia. He acquired a malarial infection in August, 1911, which was not diagnosed because of the indefinite symptoms of anorexia, pleurodynia, insomnia and general malaise; was therefore not treated. The condition slowly progressed until two months later when he became very weak, with an unsteady gait. The temperature rose next day to 102; he was very thirsty, had anorexia and vomited profusely. The next day there was dysphagia and extreme weakness; he failed to react to quinine and stimulants, and died. No special neurological or mental symptoms were observed, except the unsteadiness of gait (that was probably due to the general weakness), and cerebral vomiting. The condition had slowly progressed until an acute exacerbation of a pernicious type, the stuporous form, caused death. At the autopsy the brain was found hardened and hyperemic. A typical malarial spleen was found; many trichinous cysts in the muscles; whether these cysts influenced the condition of the patient is doubtful; they were probably old. The case seemed to be one of malarial cachexia ending in a pernicious access of stuporous type. Histopathologically the brain as in case I, showed many malarial parasites of the tertian estivo-autumnal variety (Schaudinn) filling the blood vessels; there were many capillary hemorrhages without parasites; extensive degeneration of ganglion cells; many pathological changes in the vessel walls and neuroglia.

Case III;* malarial polyneuritis. Woman, age 32; 10 years in the hospital; had dementia precox. Contracted malaria in July, 1911. Had headache, anorexia, and vomiting. She soon recovered under appropriate treatment. In September she had a relapse but without rise of temperature. Was again treated with quinine and apparently recovered. Mental condition unchanged. In November another relapse; again given quinine. December 2 she was in bed, complaining of being weak; 8th, she could not walk or even move her arms. The urine examination showed albumin, hyaline casts; sp. gr. 1022. The neurological examination showed a general flaccid paralysis of upper and lower limbs, more marked in the extensor muscles than the flexors, as is usual in polyneuritis; loss of tendon reflexes; Wassermann reaction negative; skin sensibility diminished; marked pain on pressure over nerve trunks, as also in stretching the trunks in passive extension (Lassegue's symptom); pupils reacted well to light and accommodation; no disturbances of bladder or rectum. Her con-

†History by Dr. Laughran.

* History by Drs. Read and DeWitt.

dition steadily improved under quinine and massage; she could use her arms, feed herself, and move her legs somewhat. The cause of the paralysis was probably a malarial intoxication affecting especially the peripheral nerves.

While in cases I and II there was a true malarial condition as shown by the presence of many malarial parasites in the cerebral circulation, in case III the nervous affection was rather a metamalarial condition resulting from the action of the toxins that originated in the organs by the influence of the malarial parasites.*

In regard to treatment the cases show the need of intensive treatment followed by a very prolonged administration of small doses of quinine from time to time. In comatose conditions it is advisable to use large doses of quinine by intravenous injection as used by Marchiafava.

Dr. Craig, U. S. A., said that it is common to meet with the cerebral type of pernicious malaria in the tropics; one of the peculiar features of this type of paludism being the frequent absence of the ordinary clinical evidences of malaria. The fever is usually of anomalous form, the temperature usually rather low in the cerebral cases. The prominent symptoms are those of congestion of the brain, with stupor or coma appearing early. Unless recognized and energetically treated such cases usually die; those recovering spontaneously will inevitably die in the relapse. Nervous sequelae of malaria are rather common; hemiplegia, paraplegia, and monoplegia occur and all recover under sufficient quinin medication. The aestivo-autumnal parasite is the one most frequently causative of cerebral malaria, that being the variety found most often in subtropical countries. The pathological features of cerebral malaria are enlarged capillaries with foci of thrombosis, much pigmentation and secondary degeneration. He had seen two cases in the Philippines both of which after repeated examination were diagnosed as beriberi; but the blood by chance was examined and malarial parasites were found; the disease cleared up under quinin. Neither of the cases reported by Dr. Lafora could have had adequate quinin medication at the beginning of the infection; practitioners are apt to err in this manner, giving quinin only until the subsidence of symptoms, and then the patients are dismissed. The administration of quinin should be continued for two or three months after symptoms have subsided, gradually reducing the doses.

* Since this paper was read before the Medical Society another case of pernicious malaria involving the nervous system came to autopsy in the hospital in March; the parasite found in the cerebral vessels was of the estivo-autumnal type (crescents). The diagnosis of malaria was not made. The patient was an arteriosclerotic dement; died from a large cerebral hemorrhage in the right hemisphere, fifteen days after he drank a large quantity of whiskey. Such larvate forms of pernicious malaria occurring outside the malarial season, may simulate many other nosological groups resisting treatment because inadequate; and this will be the case especially in non-tropical countries, where malaria on account of its rarity is not well recognized by many practitioners.

Dr. Evans, U. S. N., said that during his service in Cuba and the Philippines he had contracted a chronic malarial infection from which it took him several years to recover, because he did not follow the advice of his physicians in the matter of taking quinin. Manson has said that the organism is capable of storing itself away for a long time in the spleen, reappearing in the general circulation now and then and lighting up fresh symptoms; for this reason and judging from Dr. Evans' own experience, he believes it is necessary to take quinin for a long time, making a continuous application of the drug to the infected blood, in order to completely kill out the organisms. If treatment is not kept up, active exercise at the onset of warm weather will stimulate the peripheral circulation and so the plasmodia will be called out of their lurking places.

Dr. S. S. Adams said that it might be of interest to cite several cases of malarial coma in children. During his early professional days, if a patient came to the hospital and gave his residence as west of 17th Street and south of G Street, the diagnosis always was "malaria." He had received his training in the recognition and treatment of malaria at the hands of Dr. Busey. The first case of malarial coma Dr. Adams had seen was with Dr. Percey, U. S. N.; this child was well on alternate days, but on the intervening days, at a regular hour, he went into coma. Urinary and cerebral disease was excluded. When Dr. Adams first saw the child, it was in a state of coma which had come on very suddenly; the rectal temperature was 100; the coma persisted for the rest of the day. This child lived at the Navy Yard and Dr. Adams suspected the cause of the coma to be malaria, and suggested that ten grains of quinin be given, the child being 3 years old. The advice was followed; the next day the child was apparently well; the following day there was some slight manifestation of the infection, and thereafter the child was well. The second case was similar; this child he had also seen with a Naval surgeon; the patient recovered. The third case was a child living in Upper Marlboro; he had been ailing for some time and had been given small doses of quinin. One Sunday he went to church apparently well; came home, lay down and went into coma. The local physician thought the attack was uremic; but the following day the child seemed well, without fever. Tuesday, however, coma reappeared; Wednesday the child was well; Thursday coma again appeared; on this day Dr. Adams saw the patient, the diagnosis of malaria was agreed upon, and the use of quinin produced a speedy cure.

We are apt to forget that the mode of administration of quinin may make much difference in the successful treatment of malaria. He had recently seen a child suffering from malaria who was given 120 grains of quinin by suppository without effect;

every other day the temperature rose to 105, there being no other symptoms except some slight nervous manifestations. Then a mixture of muriate of quinin with yerba santa and syrup of chocolate was given; 48 grains of the quinin daily produced no result. Then the quinin was given in sulphuric acid solution, and 30 grains were given in this way before the paroxysms were broken. Whether the quinin given earlier was ever absorbed was not known. The father of this child could take a heaping teaspoonful of quinin without suffering from cinchonism.

Dr. Williams remarked upon three cases of nervous disorder due to malaria, two of them simulating cerebellar disease. The first was in a patient who had a clear history of pernicious malaria, correctly diagnosed and treated; thereafter this patient became ataxic. This case suggested the precaution not to draw the erroneous conclusion that because the nervous disability was due to malaria therefore it could be surely cured; this is not always so. This man recovered very slowly. The second case was a young woman from New Orleans who had manifestations of cerebellar disease. It was not absolutely certain that her symptoms were due to paludism; but the cause was not lues and there were reasons to believe that malaria was the true origin of the disease. Cure does not inevitably follow the administration of quinin in such cases, as may be seen from a consideration of the pathology. There are foci of degeneration of neural tissue and the subsequent overgrowth of neuroglia in plaques may be permanent.

The third case he would cite was in a woman whom he had seen in Paris, a peripheral neuritis of doubtful cause. The woman had come from New Jersey, and other causes being excluded, malaria was regarded as being the most likely etiological factor. The pathology of malarial peripheral neuritis is obscure and it is not known whether the inflammation is due to direct toxic effects of the infection or whether it is due to poisons arising as a result of disturbed metabolism.

He thought the paper of great value in thus calling attention to the possibility of malaria causing central as well as peripheral neural disease.

Dr. Lafora was particularly interested in the cases spoken of as having been diagnosed beriberi, because he had read of similar cases mentioned by British authors. It seemed to him to be necessary in malaria of the central nervous system to use quinin medication very actively and preferably by intravenous injection near the brain in order to flood the infected area as early as possible and so relieve the extreme and dangerous congestion.

EPIDEMIC CHOLERA. SPECIMENS IN THE ARMY MEDICAL MUSEUM.*

By D. S. LAMB, A. M., M. D., Washington, D. C.,

There are in the Museum 20 specimens from cases of Epidemic, or as it is also called, Malignant or Asiatic Cholera. Of these specimens, 14 were contributed by the Board for the Study of Tropical Diseases, Manila, through the Recorder of the Board, Dr. Chas. F. Craig, now Captain Medical Corps, at present stationed at the Army Medical School and Assistant Curator of the Museum.

Of these specimens, 13 are of the intestines, 2 of the stomach, 2 of the kidney, and one each of the heart, liver and spleen.

All the specimens were contributed by officers of the Army Medical Corps; none from civil life. Several represent the epidemic of 1867 in the United States.

So far as the reports state all the patients with one exception died within 24 hours after presenting the first symptom. The exception lived nearly three days.

The cause of the disease is so well known, the spirillum discovered by Koch, in 1884, that I need only mention it. The reports do not state whether any examination of the tissues or discharges was made for this spirillum. Nor is any mention made of the source of infection, whether in the water supply or food, etc. In fact the reports are for the most part very meagre of detail and leave much to be inferred.

The symptoms of this disease are so characteristic, the vomiting, rice water discharges, rapid emaciation and collapse, that in the absence of full reports it would not be useful to detail those that were reported for these specimens. Nor for the same reason, can I say anything useful in regard to the treatment.

I will say a few words about the lesions found in the specimens or reported as having been found in the cases by the contributors. Emaciation and anemia are mentioned. In one case a hemorrhage under the scalp, which may or may not have been dependent on this disease. Both anemia and congestion of the brain occurred; an increase of serum in the cerebral ventricles several times, although usually in this disease all the serous membranes are rather dry. The heart shows atrophy and is pale, and sometimes presents subpericardial hemorrhages, which point to the severe infection. Congestion of the trachea and bronchi is mentioned; and collapse and congestion of the lungs.

In one case the peritoneum was congested. The stomach sometimes shows congestion and small ulcers of the mucosa. In the small intestine usually the villi are hypertrophied, and the soli-

* Presented to the Society, March 27, 1912.

tary follicles and peyer's patches are enlarged; sometimes there is congestion and in several cases hemorrhage is reported either into the lumen of the bowel or in the submucosa; occasionally follicular ulcers are found in the large intestine. The liver is usually atrophied, sometimes congested and in one case the bile passages were full of bile. The spleen is usually small and pale. The kidneys may be congested or anemic, sometimes small, and in one case the report states that there was acute parenchymatous degeneration. In one case, in the year 1867, an examination of the blood microscopically showed the cells small and globular.

A study of these lesions points to a condition of marked infection that rapidly removes the watery fluids of the body and in that way hastens death; so rapidly that there seems to be little time to antagonize the destructive action. The antitoxin treatment would appear to be the one to use and to use it very promptly.

SARCOMA OF LEFT FRONTAL LOBE WITHOUT SYMPTOMS UNTIL SHORTLY BEFORE DEATH.—ABSTRACT.*

By B. M. RANDOLPH, M. D., Washington, D. C.

The patient, a woman of sixty-five, presented no abnormal symptoms except occasional digestive attacks, until May, 1911, when she suddenly developed mental confusion and apathy. Physical examination, both general and neurological revealed nothing definite. The mental defect consisted in difficulty of memory and concentration, inability to write intelligently and in her natural handwriting, and a complete apathy toward her environment. The diagnosis of destructive lesion of left third frontal convolution was made. Ten days after (preceding which time there was no marked change in her condition), the patient suddenly passed into a comatose state, accompanied by a transient right hemiplegia. After several hours she began to emerge from this condition, and was soon in much the same state as before the attack. There was from this time progressive decline, and two weeks from the time she was first seen she died, apparently of medullary paralysis. Autopsy of the brain disclosed a large tumor in the inner and lower side of the frontal lobe, a smaller tumor at the tip of the same lobe, adherent to the dura opposite the eye-brow, and acute softening of the third frontal convolution. Microscopic examination showed both tumors to be the same variety of sarcoma, and the softening to be due apparently to diffuse thrombosis and destruction of the blood vessels of that area.

* Reported to the Medical Society, February 28, 1912.

BURNS.*

By W. A. JACK, JR., M. D., Washington, D. C.

The result of the exposure of the human body to heat may vary from a simple reddening to actual destruction of tissue, depending on the length and character of the caloric force.

Burns of the first degree do well under simple ointments or even the application of cow cream.

Burns of the second degree require more attention. Effused serum should be allowed to escape through a small puncture at the base of the vesicle or blister and a sterile dressing applied.

Burns of the third degree if of any extent are cases that try the souls of those who have to attend them. The dressing of these cases under any of the older methods was a job that most of us were very willing to turn over to others.

In 1905 Sneve published an article advocating the dry open-air treatment of extensive burns. His method which was used in the cases here reported is as follows:

After a thorough preliminary cleaning with soap and water and gasoline (during which an anesthetic is administered if necessary) the burned area is lightly dusted with an oily powder, such as the stearate of zinc, using only enough of the powder to form a thin coating over the surface. Morphine is given to relieve pain and combat shock. Once daily all heavy crusts are removed, exudate wiped off with dry sponges, and another coating of powder dusted on. Eternal vigilance is the price of success. Under no circumstances must exudate be allowed to accumulate under the crust over twenty-four hours on account of the danger of sepsis from absorption.

When this method is faithfully carried out healing goes on with great rapidity and very little scarring results. Even when the destruction of skin is so extensive that regeneration cannot take place, an ideal surface for the placing of grafts results; the granulations being firm and not elevated above the skin edges.

CASE REPORTS.

Case 1. E. B., colored boy, age 6. Second and third degree burn from gasoline flame. Right arm and side of chest second degree; front of chest third degree. Entered Freedmen's Hospital July 7, 1908; left, Aug. 6. Result: recovery with no scars.

Case 2. R. C., white man, age 27. Burn of entire left side of body as result of falling against an overheated furnace. Second and third degree. Entered Freedmen's Hospital Sept. 10, 1909; left, Dec. 15. Recovery, some scars but no contractures.

Case 3. P. R., colored man, age 28. Burn on flexor surface

* Read before the Medical Society, March 27, 1912.

right forearm to third degree as a result of fall against red hot stove during epileptic fit. Entered Freedmen's Hospital Mar. 30, 1910; left, Apr. 15. Required punctured wolf grafts to hasten healing; result good, no adhesion of tendons to skin.

Case 4. V. S., white woman, age 21. Burn, posterior surface of buttocks and legs, second and third degrees; abdomen second degree; breasts third degree. Was treated at home by her husband, who is a physician, I merely directing the treatment as presented here. Result, complete healing without scars in six weeks. The principles enunciated by Sneve of absolute cleanliness and dryness have in these cases given ideal results. The patients after they become used to going without their usual amount of clothing and realize that they are getting good treatment are comfortable and the dressing of their injuries is no longer the terrible task to both victim and attendant that it was under other methods of treating these conditions.

Dr. I. S. Stone commended the paper as excellent in combining fullness with brevity. He could only discuss the first part of the paper. It seemed to him that the great failure in the treatment of first and second degree burns is to allow sepsis to occur. He strongly advocated the use of 25 or 50 per cent. tincture of iodine applications to any abrasions and the careful preservation of the natural cuticular protective covering of the burnt area.

Dr. Randolph said that the surgeons seemed loath to enter into the discussion; perhaps this was due to the very late recognition of the damage done by the methods heretofore prevalent in the treatment of superficial injuries. As much harm is often done by the removal of the adherent dressings as by the original injury. He cited a case in a Boston hospital of an extensive burn which was treated for months with the usual gauze dressings and which refused to improve; finally he devised a box or frame to keep the dressings from coming in contact with the denuded area and recovery quickly followed. He asked if there might not be danger from the absorption of gasoline when used to clean an extensive burn.

Dr. Carr said that it is good practice to get a burn into an aseptic condition as soon as possible; but much harm may be done by using irritating antiseptics. Iodine itself may cause blistering. There is nothing better than gasoline. A method now in use at Emergency Hospital for treating burns was introduced by Dr. Craig; it consists in using solutions of $\frac{1}{2}$ per cent. potassium permanganate over the wound; healing under this method is very rapid, and he had seen only one case which did not do well under it. No great handling or sponging is necessary; the solution is merely allowed to trickle over the burnt area.

Dr. Lemon commended the method used by Dr. Craig and spoken of by Dr. Carr; Dr. Lemon had seen very good results from it. Two years ago he had heard a paper read on the part played by the sweat glands in the regeneration of epithelium. (He here illustrated the histology of the skin.) In ordinary second degree burns there is a cleavage of the epiderm from the derm; the sweat glands being involutions of the epidermis, when healing takes place the epithelium grows out from each sweat gland as a focus. Assuming that this idea is correct, dressings of burns should be adapted to conserve these new outgrowths of epithelium.

Dr. Carr, commenting on Dr. Lemon's remarks, said that the blister of burns is formed by the accumulation of serum between the *rete corneum* and *rete mucosum*; the contents of the sweat glands are poured out into the blister. In ordinary burns the sweat glands are not at all necessary for epithelial regeneration; the *rete mucosum* will simply grow up into *rete corneum* as soon as the inflammatory reaction has subsided.

Dr. E. P. Magruder said that an important feature of the treatment of burns is the early removal of necrotic tissue; to leave dead tissue is to invite sepsis; to remove it at once is to hasten cure. He referred to the advantage of the use of morphin to prevent shock. The paper had not mentioned the total continuous bath in the treatment of extensive burns.

Dr. Williams said that in his early practice there were large iron works near his locality whence came under his care numerous cases of burns. It was his habit to apply solution of picric acid, the action of this agent being to disinfect the lesion and at the same time cover it with an aseptic cake. The principle is the same as in Dr. Jack's method; why has picric acid been abandoned in the treatment of burns?

Dr. Snyder said that years ago he had made a practice of exposing sluggish burns and ulcers to direct sunlight and had thereby obtained good results. He cited the case of a child with an extensive burn of the back; exposure to sunlight was followed by quick recovery. He had been inclined to attribute the favorable results to the action of the sunlight.

Dr. Jack said that the success of the open-air treatment lies in absolute exposure of the burn all the time; there must be no dressing whatever. No clothing should cover the burn. The rapidity of recovery under this method of treatment is astonishing. Tried side by side with permanganate solution, the open air cases heal one-third quicker. The part played by sweat glands in epithelial regeneration is mentioned in Foote's Minor Surgery, published two years ago. In removing sloughs it is important to remember to protect underlying arteries. The use of tincture of iodine, as advocated by Dr. Stone, is on the same principle

as exposure to air, the hardening and dessiccation of the skin. The use of picric acid has the disadvantage of soiling the clothing and is painful when applied. It had no advantages over the open treatment.

SPECIMENS IN THE ARMY MEDICAL MUSEUM FROM PREHISTORIC PEOPLES.*

By D. S. LAMB, A. M., M. D., Washington, D. C.

There are in the Museum some 185[†] specimens that are classed as prehistoric; a few of these are normal, the remainder show anomalies or pathological conditions. The great majority are probably precolumbian, some are uncertain as to their chronology and some others are certainly postcolumbian.

A few specimens are from abroad. One is from a grave of the polished stone age; found at Bovillon de Vichel, near Neuilly-St. Front, Department of Aisne, France; donated by Count des Cars; it consists of the right and part of the left maxilla with mandible of an adult, and part of the right maxilla of a child about 10 years old. Another specimen is a cast of the mandible found at Moulin Quignon, France, by Bouchet des Perthes; donated by Prof. A. de Quaterfages of the Institute of France, through the U. S. National Museum. There is also a plaster cast of the calvarium of the man-ape, *Pithecanthropus erectus*, found in 1891, in Java, by Dr. Eugene Dubois; 40 to 50 feet below the surface of the ground; the skull was certainly human, but between that of the gorilla and of the Neanderthal man. There is a life-size bust reproduction of the Neanderthal man, and a cast of the calvarium; the bones in this case were found in a limestone cave in the Neanderthal valley, near Düsseldorf, Rhenish Prussia, in 1863; the man antedated the Celts in Germany and belonged to the diluvial period. There are also five specimens from New South Wales.

The great majority of the specimens are from the Indian mounds of the United States; a few are from Indian graves and cemeteries. From Alabama there are 47; Arizona, 1; Arkansas, 9; Cliff dwellers, 1; Dakota, 5; Florida, 57; Georgia, 12; Illinois, 9; Kentucky, 1; Louisiana, 8; Maryland, 3; Massachusetts, 1; New Mexico, 1; New York, 3; Ohio, 3; South Carolina, 1; Tennessee, 4; Virginia, 3; West Virginia, 1; Unknown, 3. From Peru, 8; Alaska, 6.

The specimens were received from the following sources: Army Medical Officers, 6 (namely, Washington Matthews, 1; A. I. Comfort, 2; H. O. Perley, 3); Dr. C. V. Bouchet, Paris, 1; Dr.

* Read before the Medical Society and Anthropological Society of Washington, May 3, 1911. Dr. Ales Hrdlicka, of the U. S. National Museum, also read a paper on a similar subject.

† To this must be added a series of Peruvian skulls, showing prehistoric trephining.

A. Hrdlicka, U. S. National Museum, 3; Geo. Kiefer, Lima, Peru, 4; Medical Society, New South Wales, 5; Hon. Wm. McAdams, Alton, Ill., 4; Prof. Clarence B. Moore, Philadelphia, 126; Stephen Powers, Ventura, Cal., 1; Prof. F. W. Putnam, Cambridge, Mass., 1; Dr. Elmer R. Reynolds, Washington, D. C., 3; the Smithsonian Institution and National Museum, 43; unknown, 1. Several specimens were purchased.

Those received through the Smithsonian and National Museum were originally obtained by the following persons: T. H. Bean, 1; Wm. H. Dall, 2; Captain M. A. Healy, 1; Dr. James Jamieson, 1; S. S. Lyon, 1; James W. Milner, 2; E. W. Nelson, 8; P. W. Norris, 1; Dr. E. Palmer, 3; Captain Pratt, 1; Prof. Quatrefages, Paris, 1; J. M. Sharp, 1; Dr. Sherman, 3; S. T. Walker, 6; T. Z. Webb, 3.

Several specimens show simply well marked muscular prominences; in one case, the calvarium of a Navajo Indian, the external occipital protuberance is enormous. Two skulls from Moundville, Alabama, show marked posterior flattening, possibly from pressure of the earth with which also they were much stained. Of these mounds at Moundville, Mr. Moore, the contributor, says that with all his vigilance he was unable to find anything to indicate contact of white persons with the aboriginal inhabitants of what must have been a large settlement at Moundville. He thinks that there can be no question that the mounds and cemeteries there were precolumbian.

In one case, the last lumbar vertebra and first portion of the sacrum are united by their articular processes; probably a congenital anomaly; a New Mexico Indian.

In one case each clavicle shows a smooth facet on the under surface corresponding to its relation to the coracoid process, suggesting the probability of an articulation with that bone.

The very common sternal foramen is shown in one specimen from a mound in Tennessee, the McMahon mound, and was procured through the Geological Survey. The bone was part of a lot in which were also found the olecranon perforation, pilasteric femurs, platycnemic tibiae, and tibiae showing deep channeling on the outer surface; types of a lower race.

The humerus shows a marked outward curve in one case, a New Mexican Indian. Olecranon perforation is found in five: two from Florida, one from Georgia, one from New York, one from Dakota. The Georgia mound contained glass beads, and was therefore postcolumbian. The Dakota bone was part of a lot taken from an old Indian mound about 200 yards from Fort Pembina, in 1878; two skeletons were found in a sitting position facing east; around these were many broken bones and traces of fire; no implements nor utensils; among the anomalies were the olecranon perforation, platycnemic tibiae with indices 59, 61.5

and 64.6, and outward curve of humerus. The bones from New York came through the National Museum from an Indian Agency, Dr. Sherman, of Forestville, contributor, in 1876; earth burial; many humeri showed the olecranon perforation; there were a few pilasteric femurs with indices 117, 132, and more platycnemic tibiae with indices 69, 64, 62.5, 62, 60, 56.4, 55, 50.

Of the mounds in Florida, Mr. Moore says that when in a mound at considerable depth, say three feet or more, skeletons are found without any articles suggesting a knowledge of Europeans, archaeologists consider it safe to assume a precolumbian interment for the bones. When remains are found more superficially they may be classed as uncertain, although many precolumbian burials are found near the surface because of the washing away of the earth and the use of the plow. Bones found with articles distinctly European or in mounds containing such articles near the base are of course classed as postcolumbian.

One radius is deeply channeled on its anterior surface; from an Australian.

The femur. An unusual forward curvature is noticed in one case; no sign of disease; a New Mexican Indian. Pilasteric femur is seen in four cases; usually accompanied by the platycnemic tibia. One is from Florida. Another is from New Mexico, both femurs; the indices 128 and 130; the tibiae in this case were 50.7 and 64, and deeply channeled on the outer surface. In another, the femoral index was 100; from Georgia. The fourth is from Alabama. The curved femur was part of a lot of bones from the Upper San Francisco river, New Mexico; among them were pilasteric femurs with indices, 130, 133 and 140; platycnemic tibiae with indices 53.8, 57, 62.5, 65.7, 66.6 and 69.2. Of the femur from Florida Mr. Moore says that its index of 140 far exceeds that of the old man of Cro Magnon and comes within three of equaling the greatest index on record that has a definite history. He adds that although the bones were from near the surface they were near tubular beads of sheet copper, and he therefore considers them as undoubtedly aboriginal. Of the Alabama specimen Mr. Moore says that there were no objects of European make in the mound.

In one specimen from New Mexico the femur shows a third trochanter. Another femur shows a marked flattening just below the lesser trochanter, from before backwards; the *platymery* of Manouvrier. This femur was part of a lot from a mound in Illinois that showed among other things the olecranon perforation, pilasteric femurs, with indices 122 and 134; platycnemic tibiae with indices 61.4, 61.6 and 63.3. Several femora showed the peculiar broad flattening seen in the specimen described.

In addition to the platycnemic tibiae mentioned in connection with the pilasteric femurs described, there are others in which

the corresponding femur is not present. Two, the same case, from Florida; indices 51 and 50. Another from Georgia is post-columbian; the mound contained glass beads. Another, from Louisiana; there is also marked anterior curvature of the bone but no sign of disease. Another, from a grave by the Choptank river, Maryland. Another, with index 60, from New South Wales. Four others, the last with index 71, from Florida.

Deep channeling of the outer surface of the tibia appears in several specimens; one from Tennessee; another from New Mexico; and the same anomaly in a fibula from New South Wales.

In another specimen there is complete synostosis of the sacrum and ilium on one side without any sign of disease or injury; perhaps congenital; from a mound in Illinois.

Three petrified bones, the temporal, ilium and sacrum, were received from the National Museum; found at Saratosa Bay, Florida, in the dried bottom of a small pond.

There are several specimens of brain from the skulls of Peruvian mummies. One is a dry, brownish, friable mass; the dura is intact and has much of its normal toughness and tenacity. Another is dry, brown, nearly black, flattened, tough, adhesive, weight 2 ounces, on section glistening (cholesterin?), in the center a white waxy mass. Fragments burned like resin. Dura mater intact, firm, tenacious; meningeal vessels distinct. Numerous living larvae in the skull. In a third specimen the brain is dry and brownish. The mummies were found in a mound on a plantation of Caudivilla midway between Lima and Ancon; said to have been buried more than 350 years ago.

Another specimen is a dry mass of brain removed from the skull of a prehistoric Indian found in a cave in a cliff at the East Fork of White River, Arizona.

Another specimen was removed by Warren K. Moorehead from a skeleton found in the Metzger mound, Deer Creek, Ross Co., Ohio. It weighs 12.54 grams, about one per cent. of the weight of a recent brain; is dark brown, nearly black externally, rather a tan color within; everywhere granular looking; surfaces convoluted; cerebellum, pons and oblongata absent. Microscopical and chemical examination showed the presence of cells of animal tissues; also phosphates; no vegetable cells or fibers, so that the conclusion reached was that the mass was brain substance.

A specimen of dura mater was found at Winthrop, Mass., in a skull of an Indian whose burial took place over 250 years ago, according to the 22d Annual Report of the Trustees of the Peabody Museum, Cambridge, 1888.

There are two cases of hipjoint dislocation. One is a dislocation on the right side into the thyroid foramen forming a new acetabulum. The other, from Bayou Bartholomew, Louisiana,

is bilateral and congenital, is on the dorsum of the ilium, forming new acetabula; the original acetabula being shallow and triangular as is usual in congenital cases. The femoral heads are misshapen and atrophied; from a woman.

In one case the parietal bones show large symmetrical much atrophied portions due to old age.

There are many specimens showing fracture. In one, a specimen from Alaska, there is a fissure of the frontal bone, not healed, showing that the patient must have died soon after injury; the styloid process is unusually long. Three specimens from old Peruvians show fracture. In one the parietal bones show indentations as if made by some blunt-pointed weapon, and corresponding elevations internally; all well healed. In another case, an adult, there is a large depression of the parietal with elevation of the internal surface, no sign of inflammation; apparently the injury occurred early in life. In the third case there is an opening just above one orbital margin, leading into the frontal sinus and cavity of skull, with fistula through orbital roof; the subject doubtless died of injury of the brain.

In one case two lower ribs show healed fractures about midway of the shaft, with some deformity.

There are two fractures of the clavicle, in one of which a false joint formed.

Of the fractures of the humerus the following may be mentioned; all are oblique and healed, with deformity. In one there is an olecranon perforation. In another the head of the bone is coronally flattened.

Of the fractures of the ulna, in one there is a false joint as in the clavicle from the same case.

Of the fractures of the radius, one is a healed Colles fracture; in two the fracture is ununited; and in one the neck of the radius was fractured and has united with deformity and to the extent of one inch the radius and ulna are ankylosed.

The fractures of the femur are all oblique and healed with more or less deformity.

There is one fracture of the tibia, in which the fibula also was fractured, neither united. Of the fractures of the fibula, besides that just mentioned, there is one that appears to have been a greenstick fracture healed with posterior angular deformity, and in another case there is a healed Pott's fracture.

Exostoses, presumably following inflammation, are present in a number of specimens. There are two specimens of skull, in one of which, a brachycephalic skull, flattened posteriorly and forehead receding, there are two mound shaped elevations of dense bone, while the internal table is normal; from Florida.

Also two specimens of the vertebrae, apparently cases of spondylitis. In one the body of a lumbar vertebra is also much com-

pressed and hollowed out so as to resemble a tuberculous cavity. From a New Mexico Indian who had also other lesions and an unusual outward curve of each humerus, pilasteric femurs, a third trochanter on one femur, platycnemic tibiae with deep channeling on outer surface, and a symmetrical synostosis of last lumbar vertebra to the sacrum. In the other case the dorsolumbar bones show abundant exostotic bridges; from a lot of bones from an Indian grave on the Choptank river, Sandy Hill, Dorchester County, Maryland; among them a pilaster femur with index 130, platycnemic tibia index 57.1, and olecranon perforation; some bones were petrified.

One specimen of hipjoint dislocation shows exostoses in the acetabulum and below the head of the femur. Four other femurs also show exostoses. A number of tibiae show the same conditions; one of these is in the situation of the insertion of the semitendinosus muscle and may be the place of insertion. There are also two specimens of exostosis of fibula. One of the above is from a lot of bones many of which were from adolescents, showing the olecranon perforation, sternal foramen, pilasteric femurs with indices 131, 138, 144, 156, platycnemic tibiae, indices 58, 60, 65.7, 66, 67.6, tibia with deep channeling on outer surface, bones with exostoses, and one green-stick fracture.

Hyperostosis of bone is shown in a number of specimens. The ulna in two; in one the weight of the bone is twice the normal. Eight femurs show hyperostosis; in one case there are also abscess cavities and sinuses; in another some depressions in the bone suggest the possibility of syphilitic gummata. Six specimens of tibia; in one case both tibiae are affected and suggest syphilis; in another there are several sinuses; in another, both tibiae and one fibula are affected and suggest syphilis; in another the right femur, tibia and fibula were all involved; the femur also was pilasteric and tibia platycnemic; in another, each tibia shows hyperostosis of the crest, possibly syphilitic.

Besides the specimens of abscess and sinuses already mentioned, there are a few others. In one case the right femur and tibia show hyperostosis and fistulae and the kneejoint is eroded, with marginal exostoses. From a lot of bones containing humeri with the olecranon perforation and platycnemic tibiae with indices 54.3 and 63.3. There is also a mandible with abscess cavities at the roots of the incisor and molar teeth; the skull in this case has a receding forehead, a large apical occipital bone, large parietal foramina, and the sutures are partly obliterated.

One specimen apparently the 12th thoracic vertebra, shows a deep excavation superiorly of the body, suggestive of tuberculous caries. It is part of a lot of bones received from an Indian Agency, New York; earth burial and presumably prehistoric

Osteitis deformans is shown in a number of specimens. Two

of the skull; the bones are one-half to three-fourths inch thick; from Louisiana. Twelve specimens of tibia, eleven of them from Florida, the other from an unknown mound. One case in which the femur and tibia were both affected (syphilis?).

One specimen, bones of vault of skull of child, shows exostosis and osteoporosis; from Arizona.

Inflammation of joints is shown in a number of cases. In one the second and third cervical vertebrae; the bodies, laminae and articular processes are all ankylosed; from Illinois. Another, consisting of the spine, bony thorax and pelvis, shows general arthritis and exostosis; the spinous processes are joined in a bony mass and many of the joints are ankylosed; marked kyphosis; exostoses on ensiform appendix, at the interpubic joint, on the pubo-ischial rami and ischial tuberosities. This specimen is from an Aleut, Amaknak Island, Unalaska; found in a compartment in the stone walls of a large community house belonging to the village epoch of the latter part of the hunting period.

In one specimen, the innominate bone, the acetabulum is flattened and eroded; the femur from the same case, shows atrophy, roughening and displacement of the head downwards; a case of hipjoint disease; not precolumbian as shown by the glass beads in the mound; from Alabama. In another specimen the head of the femur is much worn away and there are marginal exostoses; from Florida. In another the surfaces of the kneejoint (patella absent), are eroded, with marginal exostoses; Louisiana.

Ankylosis has been already mentioned in several cases. In another specimen both superior radioulnar joints are obliterated and the ankylosis extends an inch downwards along the shafts. The symmetry of the lesions suggests the possibility of congenital anomaly but a most unusual and interesting one. The position of the bones to each other is half way between pronation and supination and these movements were therefore impossible; from Georgia. A similar ankylosis and of the same joint but only on the right side is shown in another case, from Arkansas; the left joint was not received; it may have been similarly affected.

Another specimen shows ankylosis of the lower tibio-fibular joint.

Already in several cases the possibility of syphilis has been mentioned. There are many other specimens in which the lesion appears to be syphilitic without a doubt, especially those cases in which the condition was general in the skeleton. The question as to whether they are precolumbian is for the archeologist to decide; and Mr. Moore has already been quoted on this subject.

The characteristic lesions of syphilis are shown in a number of cranial bones. In two, from Aleuts, Alaska, the frontal and parietal bones are affected. In another case, which was part of a skeleton in which other bones were similarly affected; from Ala-

bama. Another, from Louisiana. In another there is general porosity of the inner table and many erosions of the outer; from Kentucky. Another, from a skeleton in which other bones were affected; from Florida. In this case there is a third occipital condyle and the right parieto-occipital region has been artificially flattened. In another case both frontal and parietal bones are affected and other bones of the skeleton; from Florida. In another, from near Behring's Strait. In another, the frontal and parietals; from Alabama. In another, the nasals, frontal and parietals; from Alabama. In another, the outer table, especially the parietals; other bones of the same skeleton affected; from Alabama. This skeleton lay in a grave-pit with four other skeletons side by side; no objects showing European contact.

Here also is placed though doubtfully the skull of a child about 5 years old, presumably old Peruvian, in which the anterior lower part of each superior maxilla has been destroyed by ulceration; marginal exostoses and osteoporosis. The roof of each orbit shows symmetrical new cauliflower-like bony growths. If the lesion is from lupus the interest is not less; it could hardly be cancerous at such an age, and it must be admitted that it would be an early age for syphilis.

The clavicles are affected in two cases; in one both clavicles show necrosis and fistulae; other bones of the same skeleton affected; from Alabama. In another case of general syphilis, the clavicles were affected; from Arkansas.

The humerus in three cases in each of which the condition was general; in one, both humeri are affected; from Florida. Another, from Virginia. A third, both humeri, from Alabama.

Bones of the forearm. In all these cases other bones of the same skeleton were similarly involved. In one case the ulna and radius show hyperostosis and sinuses; left radius also involved; age of subject about 16. In another, both ulna and radius; hyperostosis and necrosis. In another, the radius. The above are from Florida. Those that follow are from Alabama. One, the ulna; hyperostosis. In another, ulna, fistulae and necrosis. In another, the ulna and radius; fistulae. In another ulna and radius; hyperostosis and necrosis. In another, bones of both forearms; from Arkansas.

A metacarpal bone was involved along with other bones; Alabama.

The bones of the lower limbs may be considered more or less together. In all but two of the femur cases, other bones besides those named were involved. In one case a femur and both tibias were affected; no other bones mentioned; Ohio. In another case both femurs, a tibia and fibula; hyperostosis; tibia platycnemic; Florida. In another, both femurs, a tibia and fibula; hyperostosis and necrosis; Florida. The following are from Alabama. In one,

the femur and bones of the leg; hyperostosis. In another, the femur and bones of both legs; hyperostosis and necrosis. In another, the femur, tibia and fibula; hyperostosis. In another, the femur and both tibias; hyperostosis; no other bones mentioned. In another, both femurs and tibias; hyperostosis, necrosis, fistulae. In another, both femurs and the bones of both legs; hyperostosis, necrosis. In another, the femur and bones of both legs.

In some cases the femur is not mentioned, only the tibia and fibula. With one exception in these cases other bones of the skeleton were also involved. In one, both tibias and a fibula; hyperostosis; Florida. In another, bones of both legs; Virginia. In another, the tibia and fibula, hyperostosis; Alabama. In another, the tibia and fibula, hyperostosis; no other bones mentioned; Alabama. In another, the bones of both legs; hyperostosis and necrosis; Alabama.

In the following cases the tibia only is mentioned; the lesions are mainly of the crest. It does not appear whether other bones of the skeleton were involved except in one case where it is so stated; it is probable, however, that where both tibias were affected, other bones also were involved. One case is from California. In another both tibias were affected; exostoses; Florida. In another, hyperostosis and necrosis; Florida; in this case other bones were involved. In another case, hyperostosis; an adolescent; Alabama. In another, a fungus-like mass of bone appears; Alabama. In two others there are exostoses; Alabama. In another, both tibias; hyperostosis; Alabama. In another, hyperostosis and erosion; Alabama. In another, hyperostosis; Louisiana. In another, hyperostosis; Arkansas. In another, hyperostosis; Louisiana.

It should be mentioned that in some cases, especially in the lower limb, the syphilitic inflammation involved also the neighboring joint, apparently by extension.

In conclusion it may be stated as a summary that the specimens include those that show the ordinary anomalies of bone and also those such as the olecranon perforation, the pilasteric femur and the platyncemic tibia, that are seldom found in the higher but quite commonly in the lower races of men. Some specimens show that the very perishable organ the brain may be more or less preserved for centuries. Others show the dislocations and fractures of bones and joints, as they are seen at the present day, and the causes were doubtless similar. Others again show inflammation of bones and joints, with ankylosis, abscesses, fistulae, sinuses, to all appearances just the same as we see now or, at any rate, did see before the advent of antiseptic surgery. Osteitis deformans must have been prevalent among the Florida mound builders. Of tuberculosis there is hardly a specimen that is even suspicious, but of syphilis there must have been a plenty.

NOTE.—Since this paper was written the Museum has received from the U. S. National Museum 22 specimens of bone, collected from the cemeteries in the valley of Chicama, Peru, by Dr. Ales Hrdlicka, one of the curators of that museum. The date of interment is believed to coincide very closely with that of the advent of the Spaniards.

These specimens comprise: Four of the vertebrae showing osteoarthritis. One ulna; osteoarthritis; a femur showing osteoporosis; femur, arthritis; femur with exostoses; osteomyelitis, two; two, osteoarthritis; one green-stick fracture with platymery; three other fractures, all well healed, with much shortening and deformity, in one case, some platymery. A tibia showing inflammation; one with exostoses; one with osteitis deformans; two showing fracture with repair. Also a specimen of both bones of leg, showing osteoarthritis.

Dr. Kober said that as to trephining, Ayres, in "Surgery among Prehistoric Peoples," explained the performance of trephining in cases without fracture as being a method of cure of epilepsy—the opening being made to let out the evil spirit. It is interesting to note the absence of evidences of rickets or tuberculosis. In his own life among the Modocs and Pintas, and other tribes, there was no tuberculosis; but when these people gave up living in tepees for the houses of one room, so usual among them (10 feet by 12, or 12 by 15), then tuberculosis made rapid inroads among them. Physical degeneracy has also followed commingling with whites, and this factor has contributed also to cause tuberculosis. The appearance of rickets is perhaps due to the adoption of civilized methods of cooking; thus destroying the organic acids and other substances naturally occurring in plants. It was to be noted that the breast-fed children of these Indians very seldom had diarrhoeal diseases.

Dr. La Garde said that in 1876 he was surgeon to the Sioux and northern Cheyennes at Fort Robinson, Nebraska. He saw no evidence of tuberculosis among those people, except one case of tuberculosis of the tibia in a girl. Twenty years later, at the Pine Ridge Agency, the Indians living in houses built by the U. S. Government, he found them in a state of physical degeneracy, and one of the most potent causes of this degeneracy was the presence of pulmonary tuberculosis among them.

Dr. E. L. Morgan said that seven years ago he had read before the Medical and Surgical Society a paper upon the subject of Surgery among Prehistoric People; later he had read a paper on Precolumbian Syphilis; he then took the position that it is one thing to have documents to show the existence of syphilis in precolumbian times and it is another thing to have an undoubted bone from that period showing the presence of syphi-

litic lesions. If syphilis did exist in those days why did not the early settlers of Virginia find specific skin lesions and syphilitic neuroses among the Indians?

He believed that trephining was done by the Indians for good surgical reasons. He gave evidence that in the '60's the Nez Percés Indians suffered much from scrofula. He himself saw many cases of pulmonary tuberculosis among the Indians with whom he came in contact.

Dr. W. P. Carr said that two bones in particular had interested him: A femur with enlarged extremity, which seemed to him to be an instance of rarefying osteitis. He had seen a case very similar to it in a woman; the x-ray picture showed the femur to be almost exactly like the specimen; the patient had accidentally broken the bone, and he had treated her at the George Washington Hospital; the bone united readily and two years later it was much reduced in size. He had seen several cases of rarefying osteitis; there is usually no pain and no other symptom. The femora with mushroom heads looked like cases of impacted fracture of the head. As to the spongy growths on the bones of the skull, this must have been an indigenous disease; there is nothing of the kind to be seen now.

Dr. Shands said that Dr. Hrdlicka had been unable to account for certain femoral heads which showed a peculiar splayed out appearance; this, it seemed to Dr. Shands, was due to a tuberculous osteitis with continued use of the leg; there is a formative and destructive osteitis going on at the same time; he had demonstrated this in a specimen of coxa vara, which he had examined. The bone with a sequestrum was a typical case of osteomyelitis.

Dr. Williams remarked on the absence of specimens showing acromegaly or giantism; it seemed hardly conceivable that such a great tribe could exist without instances of giantism; perhaps the bones of such individuals were preserved and used in the arts as too valuable to bury. If syphilis was present among these peoples why are there no evidences of Charcot joints? He also remarked the absence of cases of spina bifida among the specimens. As to rarefying disease of the orbits, these cases looked to him to be instances of a developmental disease; the changes begin and are most marked about the centers of ossification.

Dr. Hrdlicka said as to Dr. Kober's suggestion that trephining was used as a treatment for epilepsy, that epilepsy and insanity were rare among the Indians; also, insanity was not referred to the brain by them, and the insane were regarded as persons endowed with special gifts and thus were not regarded as being diseased. In 39 tribes of living Indians epilepsy is not regarded as a disease. The evidence is that trephining was done

for some surgical reason. There is evidence also that in injuries to the bones, suppuration was rare and recovery frequent.

As to Dr. Williams' remarks, the only case of acromegaly ever found by Dr. Hrdlicka was in a Sioux some years ago. The Indians would not have used human bones in the arts; if they were regarded as precious at all they would have been buried. Spina bifida has not been found; cleft palate has been found in but two instances and these not marked cases. As to precolumbian syphilis and tuberculosis, he was inclined to hold a conservative attitude toward this question; evidences of these diseases are very rare, to say the least. The pathology of primitive peoples is much more simple than it is today.

Dr. Lamb wished to say a few words about the specimens of syphilitic disease of bone. When only one bone in a given case shows changes suggestive of syphilis, it would be rather rash to say offhand that syphilis had actually been present; but when an entire skeleton (as one found in a mound in Alabama) shows syphilitic erosions in all the bones, if the skeleton is really that of a precolumbian Indian, then precolumbian syphilis is proved. As to several specimens presented by Dr. Hrdlicka, he would suggest craniotabes as an explanation of the curious condition of the bones. Could the large femur have been due to a greenstick fracture? Such deformities do sometimes occur from that cause. The several specimens of tibiae with the sloping articular surfaces may have been instances of knock-knee.

UNUSUAL CASE OF TABES WITH TOXIC COMPLICATIONS IN THE AETIOLOGY.*

By TOM A. WILLIAMS, M. B., C. M. (Edin.), Washington, D. C.

A man, age 56, seen with Drs. Fillebrown and Abbe, felt, five years ago, numbness in the toes and had dimness of sight. The numbness gradually became worse, ascending the legs. Two years ago, catheter life followed difficult urination and impotency. Since a year he found it hard to rise from his hands and knees. Since a month, deafness was noticeable.

He attributed his sickness to the inhalation, at work, for ten years, of wood alcohol, in testing thermometers. This ceased five years ago and amyl alcohol had to be inhaled for ten minutes daily. The breaking of ribs twice and of nose severely are thought of importance. Previous history insignificant.

Reflexes.—Patellar exaggerated; Achilles diminished; abdominal, left lower absent, others moderate; cremaster diminished; bulbo-cavernosus present and brisk, though hard to elicit.

*Reported to the Medical Society, January 31, 1912.

Motility.—Standing on both feet, slight swaying; could not stand on right alone. Romberg on left. Walk ataxic when eyes were closed. Diadocokinesis normal.

Sensibility.—Temperature, attitudes, localization and diapason intact. Pin prick lost in the feet, becoming less and less diminished in the legs, and normal in upper part of thigh. Light touch lost in an area an inch square over right internal condyle of femur. Deep pain diminished.

Special Senses.—Slight deafness, which had recently increased. Slight dimness of vision, slight pallor of optic discs, especially of the left and temporal side of the right.

Pupils.—The right hardly contracted, and was oblate above. The left contracted faintly, quickly recoiling

Diagnosis.—The impairment of the pupil reactions, the difficulty of micturition, the disturbances of the sensibility of the lower limbs with ataxia are not consistent with any toxic symptom complex, which would not spare homologous neuronal systems in other parts of the body. True tabes is the cause of the condition. That is to say, it is the result of an ingravescent radiculitis of leptomeningeal source leading to secondary degeneration of the spinal roots and their derivatives within the spinal cord. (See Nageottes writings and the author's *Pathogenesis of Tabes Dorsalis*, *Amer. Jour. Med. Sci.*, Aug., 1908, etc.)

Treatment.—The success of intensive antiluetic treatment is demonstrated in many cases. It should always be tried in those which do not undergo a spontaneous arrest. Mouth medication is harmful, as the nutrition of such patients is already impaired. Salvarsan in some cases has been rapidly efficacious.

Dr. Mackall inquired as to the present state of the patient's optic nerves and the extent of his field of vision.

Dr. Chappell inquired if the patient's sensibility to heat and cold was disturbed.

Dr. Abbe said that the patient's symptoms had begun a number of years before with failure of vision, mild ataxia, loss of erectile power, constipation and bladder paresis. An interesting feature of the case was that the stage of lightning pains had been missed, and this added to the difficulty of diagnosis. The disease arose during a time when the patient was daily working with methyl alcohol in his trade, that of fixing films. He then substituted banana oil for the methyl alcohol, in the hope of securing relief from his symptoms and of avoiding any further damage. This latter agent he also abandoned, but in spite of the elimination of these substances he obtained no relief. The exact primary cause of the disease is unknown; the Wassermann reaction was negative. His personal history gave no suggestion of syphilis.

Dr. Fowler said that emphasis should be laid on the symptoms

referable to the bladder, for the reason that many paretics present themselves first to the genito-urinary surgeon with the symptom of inability to completely empty the bladder. Cystoscopic examination shows a change in the musculature of the bladder wall, there being present prominent interlacing bands of muscle bundles, markedly differing from the trabeculation of prostatic hypertrophy; this appearance is pathognomonic.

Dr. Williams replied to Dr. Chappell that the temperature sense in the case was normal. To Dr. Mackall he said that the optic discs were pallid; there were no scotomata, as one would find in methyl alcohol cases. A fact which had not been mentioned was that there was only slight loss of deep pain sense. As a rule when the Achilles reflex is gone, there is loss of the deep pain sense, which is a valuable diagnostic sign as between tabes and polyneuritis. Another pathognomonic sign is the pupillary reaction. All the physical signs pointed to the prodromal pathological condition that eventuates in tabes. He would amend Dr. Fowler's remarks by saying that the bladder sign is not of the tabetic bladder, but the bladder of the pathological state that causes tabes. Commenting on Dr. Abbe's remarks he said that the stage of lightning pains is absent in a proportion of cases, the percentage being given by some authorities as high as 20. The absence of the Wassermann reaction is not unusual, it being absent in perhaps 40 per cent. of the cases, which emphasizes the importance of careful neurological examination of such cases and the proper appreciation of the neurological syndrome.

PROCEEDINGS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

Wednesday, February 21, 1912.—The President, Dr. J. B. Nichols, presided; about 100 members present.

The Surgeon General of the U. S. Navy, Dr. C. F. Stokes, addressed the Society on "Medicine in the Navy of To-day"; illustrated by many lantern slides. A rising vote of thanks was given to him for his interesting and instructive address.

Wednesday, February 28.—The President, Dr. Nichols, presided; about 70 members present. In the absence of the Recording Secretary, Dr. Abbe acted as Secretary.

Dr. N. P. Barnes reported his attendance as delegate to the Health Week held in Baltimore by the Medical and Chirurgical Faculty of Maryland.

The committee on Public Instruction in Medical Matters made

an informal report. Dr. E. L. Morgan expressed his opposition to the drain upon the Society's treasury occasioned by the public lectures arranged for by the Committee.

A letter from the Georgetown Citizen's Association was read asking the Society's consideration of a resolution adopted by that association urging upon Congress the appropriation of sufficient funds to perpetuate Columbia Hospital. Referred to the Executive Committee.

The Washington Obstetrical and Gynecological Society invited the members of this Society to attend the 500th meeting of that organization, at which a paper would be read by Dr. Crile, of Cleveland, Ohio. The Corresponding Secretary was instructed to include this invitation on the program cards of the Society.

The resignation of Dr. Wm. Peyton Tucker was accepted.

Dr. Randolph presented a specimen of Brain Tumor. Discussed by Drs. Williams and Randolph. See page 105.

Dr. Martin read the essay for the evening on The Methods of Diagnosis of the Position of the Stomach. (Roentgenographs by Drs. Dunlop and Abbe.) Discussed by Drs. Mallory, Abbe, Frankland, Groover, Williams and Martin.

Wednesday, March 6; STATED MEETING.—The President, Dr. Nichols, presided; about 90 members present.

The Treasurer presented his report for February, showing receipts, \$286.00; disbursed, \$270.90.

Dr. G. Wythe Cook, for the Executive Committee, recommended the following:

(a) Amend the Constitution, Art. VII, Sec. 2: After the words "shall consist of the President, Treasurer," insert the words "Recording Secretary, Corresponding Secretary."

(b) Amend Art. I of the By-laws as follows: Number the present Article, Section 1, and add the following Section:

2. The time devoted to business shall not exceed thirty minutes, excepting at stated and special meetings and at meetings devoted to the election of officers.

(c) Amend Art. II of the By-laws: Number the present Article, Section 1, and add the following Section:

2. No matter involving an expression of the opinion of the Society in public matters shall be considered or voted on except after due notice of the subject and time of its consideration shall have been sent to all the active members.

(d) That the Treasurer be authorized to expend on the order of the Committee on Public Instruction the sum of \$25.00 for public lectures.

Recommendation (d) was adopted and the expenditure authorized.

The following physicians were elected to active membership:

Drs. R. W. Conklin, O. C. Cox, R. F. Dunmire, Alfred Glascock, J. W. Lindsay, E. T. Stephenson and W. D. Tewksbury.

Dr. Balloch, *from the Committee on Censors*, stated that to facilitate the work of the Committee, the Censors proposed the following:

Amend Section 4 of Article V of the Constitution as follows: After the word "Society," in line 7, insert the following: The Corresponding Secretary shall send to each member of the Society a list of all pending applications for membership, at least one month before the stated meeting at which such applications are to be acted upon by the Society.

The Treasurer was authorized to pay a bill of \$14.00 for printing for the Recording Secretary, and \$61.50 for the expenses of Dr. J. D. Thomas, as delegate to the Legislative Council, A. M. A.

The Committee on Public Instruction made an informal report.

Applications from the following physicians for active membership were referred to the Committee of Censors: Drs. Daniel P. Bush, G. W. U., 1905, and Harry S. Lewis, G. W. U., 1910; P. Edward Larkin, Georgetown, 1908, and James Albert Potter, Georgetown, 1907; and Milton Hahn, Johns Hopkins, 1907. Also for associate membership Drs. Ernest Luther Bullard, Rockville, Md., W. Allen Griffith, Berwyn, Md., Walter Van Swearingen, Washington, and Sheldon G. Evans, U. S. Navy.

Dr. W. O. Owen offered the following: *Resolved*, That it is the feeling and opinion of the Medical Society of the D. C. that all beds in the open wards of the hospitals of this city which are paid for by the Board of Charities of D. C., should be open to accept medical attention from any legal practitioner of the D. C. The Corresponding Secretary was instructed to have the resolution printed upon the next program cards with notice that action would be taken thereupon at the meeting March 13.

Dr. J. D. Thomas, delegate to the National Legislative Council, reported that he had attended the meeting of that body, and that his efforts had been mainly directed toward securing the interest and coöperation of members coming from constituencies of Representatives and Senators composing the Congressional Committees on this District, it being his opinion that in this way favorable consideration may be secured for the proposed Medical Practice Act.

A matter of local interest was the fact that the Council urged upon Congress the appropriation of a generous sum for the approaching International Congress of Hygiene and Demography.

Action upon proposed amendments to the By-Laws offered by Dr. Tom A. Williams at the January stated meeting, entitled "A plan of organization to minimize the present difficulties," being in order, Dr. Williams spoke in favor of the amendment. The proposition was referred to the Committee on Program for further consideration.

Dr. G. R. Lafora, of the Staff of the Government Hospital for the Insane, read the essay for the evening. Title: Malaria of the Nervous System, with report of three cases. Discussed by Drs. C. F. Craig, U. S. A., S. G. Evans, U. S. N., S. S. Adams, Williams and Lafora. See page 99

Wednesday, March 13.—The President, Dr. Nichols, presided; about 150 members present.

The resignation of Dr. Robert A. Schoonover was accepted.

Dr. W. L. Masterson, as a matter of personal privilege, in order to ascertain the attitude of the Society in the matter, stated that he had been cited to appear in the Police Court for prosecution for an alleged violation of the act for the prevention of contagious diseases; he requested that a letter from the Health Officer in regard to the matter be read. The letter was read.

On motion of Dr. Hooe, the following resolution was adopted: That the Medical Society defray the necessary expense incurred in defending Dr. Masterson's case in the courts.

The resolution proposed by Dr. Owen, March 6, was discussed and decided in the negative.

Mr. Morris of Pittsburgh, Pa., demonstrated the Draeger Pulmotor apparatus for adults and one just devised and completed for the resuscitation of apnoeic infants.

Dr. Holmes, Director of the U. S. Bureau of Mines, addressed the Society upon the subject of mine rescue work, and the use of resuscitation apparatus in particular.

Mr. Chas. A. Hume, of the Washington Gaslight Company, described the use of the pulmotor by the employes of the gas company, and generously offered, on behalf of the company, the use of the apparatus to any physician of the Society having need thereof.

A vote of thanks was given to Messrs. Morris, Holmes and Hume.

Wednesday, March 20.—The President, Dr. Nichols, presided; about 90 members present.

The program for the evening being in charge of the Section on Ophthalmology, Rhinology, Laryngology and Otology, Dr. Hammett, Chairman of that Section, was invited to preside jointly with President Nichols.

Dr. Hammett introduced Dr. Chas. W. Richardson, who read the essay for the evening entitled: Tonsillectomy; its Consideration and its Indications. Discussed by Drs. R. R. Walker, O. Wilkinson, McKimmie, Butler, A. F. A. King, Roy, Shands, S. S. Adams and Richardson. See page 85.

Wednesday, March 27.—The President, Dr. Nichols, presided; about 85 members present.

Dr. Williams, for the Committee on Public Instruction, announced that the health articles promulgated by that Committee were not at that time being published by the *Washington Post*; it was hoped that the difficulties in the way of publishing in that newspaper might soon be overcome.

A letter from the American Medical Association requested the appointment of a representative of the Society to act upon a national committee on the proposed tuberculosis sanatorium for the Association. The official Delegate was instructed to act in that capacity.

Dr. J. D. Thomas called attention to the public agitation now prevalent for some sort of milk legislation, and moved that the Chair appoint a committee to consider the problems involved in the milk supply of this city and to submit recommendations for the guidance of the Society in formulating a collective opinion upon the subject. The motion carried, and the Chair appointed the following committee: S. S. Adams, chairman; G. N. Acker, G. L. Magruder, W. P. Carr, J. J. Kinyoun, F. Fremont-Smith, Isabel Haslup-Lamb, Louise Tayler-Jones, P. S. Roy, Frank Leech, J. S. Wall, B. M. Randolph, Jesse Ramsburgh, H. H. Donnelly, W. J. Mallory, Prentiss Willson, N. P. Barnes, H. B. Deale, E. B. Behrend, E. P. Copeland and W. J. French.

An appropriation of \$12.00 was granted for printing copies of the proposed medical practice act for the use of the delegate to the National Legislative Council.

Dr. G. Wythe Cook offered the following: *Resolved*, That the action of the Medical Society of the District of Columbia on March 13, 1912, in authorizing the employment of counsel to defend one of its members in an action brought against him by the Health Officer of the District of Columbia, shall not be considered as establishing a precedent, nor construed as a disposition on the part of this Society to array itself against the Health Department of the District of Columbia.

The consideration of the resolution was postponed one week, and the Corresponding Secretary instructed to have it printed on the program cards together with notice of its proposed consideration.

Dr. Vaughan presented a specimen showing a pylorus removed for perforating ulcer of the stomach, and gave a history of the case.

Dr. D. S. Lamb presented specimens from the Army Medical Museum illustrative of Epidemic Cholera. See p. 104.

Dr. Wm. A. Jack read the essay for the evening. Subject: Burns. Discussed by Drs. I. S. Stone, Randolph, Carr, Lemon, E. P. Magruder, Williams, Snyder, Macatee and Jack. See p. 106.

WASHINGTON MEDICAL ANNALS.

Journal of the Medical Society of the District of Columbia.

Published Bimonthly by the Society, at No. 2114 Eighteenth Street, N. W., Washington, D. C.
 Subscription price, including postage, \$1.00 per year, in advance. Single copies, 20 cents. Advertising rates given on application.

COMMITTEE ON PUBLICATION.

D. S. LAMB, A. M., M. D., *Chairman and Editor*, 2114 Eighteenth St., N. W.*Associate Editors.*

B. G. POOL, M. D.,	945 Rhode Island Avenue, N. W.
H. H. DONNALLY, M. D., A. M., B. S.,	1612 I Street, N. W.
TRUMAN ABBE, A. B., M. D.,	Stoneleigh Court.
W. W. WILKINSON, M. D.,	The Rochambeau.

Editorial.

History of the Medical Society of the District of Columbia.—This book should be in the hands of every member of the Medical Society. The price is only \$1.00, with 25 cents added if delivered in this city or sent by mail. Address Dr. C. W. Franzoni, 605 I Street, N. W. The books are in the custody of Dr. D. S. Lamb, at the Army Medical Museum.

THE OTHER MEDICAL SOCIETIES OF THE DISTRICT OF COLUMBIA.

THE MEDICAL HISTORY CLUB OF WASHINGTON. Officers: C. W. Richardson, President; B. M. Randolph, Vice President; H. W. Lawson, Secretary.

THE HIPPOCRATES SOCIETY meets on the second Thursday in each month from October to May. Membership limited to 25. Officers: T. S. D. Grasty, President; W. G. Young, Vice President; L. M. Hynson, Secretary-Treasurer. May 9, meeting at W. C. Moore's, The Wyoming; President's address.

SOCIETY OF OPHTHALMOLOGISTS AND OTOLOGISTS of Washington.—S. B. Muncaster, President; R. S. Lamb, Vice President; A. B. Bennett, Secretary-Treasurer. Meets on the third Friday in each month from October to May, inclusive.

CLINICAL SOCIETY OF WASHINGTON. Composed of 25 active members besides retired members. Officers: C. M. Hammett, President; T. A. Groover, Vice President; W. E. Clark, Secretary-Treasurer; L. A. Johnson and J. D. Thomas, Censors.

May 13, L. A. Johnson, essayist; meeting at H. H. Donnally's; discussion led by M. D'Arcy Magee.

Oct. 14, V. B. Jackson, essayist; at T. A. Groover's. Discussion led by D. W. Prentiss.

Nov. 11, A. B. Hooe, essayist; at Sothoron Key's. Discussion led by L. H. Reichelderfer.

Dec. 9, F. L. Biscoe, essayist; at J. D. Thomas'. Discussion led by Monte Griffith.

THE WOMEN'S MEDICAL SOCIETY of the District of Columbia meets on the second Tuesday of each month from October to May, inclusive. The officers are Mary Parsons, President; H. W. Bordeau-Sisco, Vice President; Mary Holmes, Recording Secretary and Treasurer, and Martha M. B. Lyon, Corresponding Secretary.

GALEN SOCIETY of the District of Columbia. H. J. Bryson, President; R. L. Spire, Secretary-Treasurer. May 20; meeting at E. P. Copeland's; paper on Tubercular Meningitis by C. A. Hyde, with report of case.

Oct. 21, meeting at R. L. Spire's; election of officers and miscellaneous business.

CLINICO-PATHOLOGICAL SOCIETY.—Active membership limited to 25. Inactive membership, those who have withdrawn from active membership for 15 years. A limited honorary membership of distinguished medical men. Meets on first and third Tuesdays from October to May, inclusive. Officers: W. G. Morgan, President; Sothoron Key and E. E. Morse, Vice Presidents; B. M. Randolph, Secretary and Treasurer. Program for 1912:

DATE.	PLACE OF MEETING.	ESSAYIST.	TO OPEN DISCUSSION.
May 21.	Dr. Morgan, 1417 R. I. Ave...	President's Address.	
Oct. 15.	" Parker, 1518 Conn. Ave...	Election of Officers.	
Nov. 5.	" Miller, 1730 K Street	Dr. Johnson	Dr. Randolph
Nov. 19.	" Hagner, 1824 19th St.....	" Parker.....	" Dunlop
Dec. 3.	" Key, 1716 H St.....	" Kerr.....	" Miller
Dec. 17.	" Kerr, 1742 N St.....	" Morse.....	" Parker

GEORGETOWN CLINICAL SOCIETY.—Twenty active members; limited to graduates of the Medical Department of Georgetown University. Meets at University Club, second Tuesday in the month. R. A. Hamilton, President; J. J. Mundell, Vice President; J. R. Verbrycke, Jr., Secretary-Treasurer. Meeting May 14 at E. P. Larkin's; essayist Dr. Martell. Annual smoker. date not decided.

THERAPEUTIC SOCIETY of the District of Columbia.—Meets at the G. W. School of Pharmacy, 808 I st. n. w. on the first Saturday in each month. L. H. Taylor, President; S. R. Karpeles Secretary.

Program for 1912:

June 1.—Papers on Syphilis, Etiology and Pathology, by C. B. Conklin; Symptoms and Diagnosis, by E. T. M. Franklin; Syphilis in Children, by W. J. French; Treatment, by Dr. Burch; Discussion, D. O. Leech.

October 5.—Diabetes mellitus; Etiology and Pathology, by H. M. Kaufman; Symptoms and Diagnosis, by E. H. Egbert; Treatment, by W. M. Barton; Discussion, W. M. Sprigg.

November 2.—Alcoholism; Acute Alcoholism, by L. S. Savage; Chronic, by Dr. Latimer; Prophylaxis and Treatment, by M. F. Thompson; Discussion, D. P. Hickling.

December 7.—Smoker at University Club; President's address.

THE SECRETARIES of the other Medical Societies of this District are reminded that the ANNALS will publish the schedules of their meetings.

THE ANNUAL MEETING of the American Medical Editors Association will be held at Atlantic City June 1 and 3; headquarters at the Marlborough-Blenheim Hotel.

THE AMERICAN JOURNAL OF SURGERY will publish in its June number a series of original papers by prominent New York surgeons, namely, Drs. Boldt, Dowd, Dunning, Gottheil, Keys, Lilienthal, May, Meyer, Morris, Pilcher, Polak, Tuttle, Warbasse and others.

THE COMMITTEE ON PUBLIC INSTRUCTION of this Society, received a complimentary notice in the *Pennsylvania Medical Journal* for April, page 581.

PUBLIC HEALTH EDUCATION.—Both The Woman's Clinic and the Committee on Public Instruction in Medical Matters have continued active during the past two months; 61 talks on matters pertaining to first aid, personal and public health were given by the former during March and April and 8 by the latter. The lectures on First Aid in Emergencies were given by Drs. C. B. Conklin, Alice W. Downey, C. I. Griffith, Stuart Johnson, Isabel H. Lamb, L. H. Taylor, A. P. Tibbits, C. E. A. Wilson and Col. L. A. LaGarde. These lectures were given to club women, troops of boy scouts, seminary girls and campfire girls. Four lessons in home nursing were given to campfire girls.

Lectures before Home and School Associations on Child Hygiene were given by Drs. Michel Dumas, E. H. Egbert, Julia R. Hall, W. J. Mallory, Elnora C. Folkmar, Isabel H. Lamb, W. L. Robbins.

Lectures on Sex Education and Social Hygiene were given before Home and Teachers Associations, the Educational Com-

mittee of the Twentieth Century Club, the general public, university and normal school students. The lecture to the general public was given at the Public Library by Dr. Prince A. Morrow, founder of the American Society for Sanitary and Moral Prophylaxis. Much interest is being manifested in the discussion of these subjects. The topics discussed were "How to tell to children the story of the origin of life," "The Hygiene of the Adolescent girl," "Sex education for girls," "What State boards of health and municipal boards are doing to control venereal disease," "The status of the church in relation to venereal disease" and "The need of sex education for social hygiene." Fifteen lectures were given, 1 by Dr. Egbert, 8 by Dr. E. C. Folkmar, 5 by Dr. C. A. Tignor, and 1 by Dr. Catherine Porter, of Orange, N. J. A conference under the auspices of the Committee on Public Instruction in Medical Matters was held at the office of the General Secretary of the Y. M. C. A. to consider the advisability of organizing a society for the conduct of an active campaign of education in matters relating to social hygiene. This resulted in the taking of the first step looking to such an organization. Dr. Tom A. Williams was named chairman of a committee of eleven to draft plans for the organization. Forty volumes on sex education and social hygiene have been donated to The Woman's Clinic by two friends. These have been divided into four sets and are being circulated among mothers and teachers.

Other subjects that have been discussed are "Open air schools and tuberculosis," by Drs. B. F. Warren, W. C. Woodward, W. C. Gwynn and J. R. Wilder, "The prevention of Typhoid Fever," by Dr. L. L. Lumsden, "Pure and Adulterated Drugs," by Dr. Lyman Kebler, and "What shall we do for the drunkard," by Dr. Harnsberger, of Catlett, Va.

THE COMMITTEE ON PUBLIC INSTRUCTION IN MEDICAL MATTERS is in great need of articles or paragraphs for the weekly publication. Members are urged to collaborate in the interests of the profession against ignorance and misrepresentation. See list of articles desired in the ANNALS for March, page 75.

RECENT PUBLICATIONS BY PHYSICIANS OF WASHINGTON.

W. M. Barton: Exaggeration in reporting medical advances; *Jour. A. M. A.*, April 13, page 1120.

H. A. Brown: Extension of registration area; *N. Y. Med. Jour.*, March, page 23.

L. E. Cofer: Advantages of national quarantine; *N. Y. State Jour. Med.*, March. Abstracted in *Jour. A. M. A.*, April 6, page 1036.

R. H. Creel: Vegetables as a possible factor in the dissemination of typhoid fever. Reprint from Public Health Reports, No. 72, 1912.

J. Dunlop: Adolescent tibial tubercle; *Amer. Jour. Orthopedic Surg.*, February. Abstracted in *Jour. A. M. A.*, April 6, page 1039.

F. A. Fenning: Voluntary submission to treatment and custody in hospital for the insane; *Jour. A. M. A.*, April 13, page 1104.

S. I. Franz: The present status of psychology in medical education and practice; *Jour. A. M. A.*, March 30, page 909.

H. D. Geddings: The bacteriological diagnosis of cholera. Reprint from Public Health Reports, No. 75, 1912.

J. M. Hardy: Physician and his influence; *Va. Med. Semi-Mo.*, March 22.

H. H. Hazen: Mercurial nephritis; *Va. Med. Semi-Mo.*, April 12, page 8. Also Pemphigus foliaceus in a negro; same journal, April 26, page 42.

J. R. Kean: Venereal problem in Army and Navy; *Military Surgeon*, March.

J. W. Kerr: Vaccination; an analysis of the laws and regulations relating thereto in force in the United States. Public Health Bull., No. 52, January, 1912.

L. Kolipinski: Hay asthma; its symptoms, treatment and etiology; *Mo. Cyclop. and Med. Bull.*, February.

A. J. McLaughlin: The necessity for safe water supplies in the control of typhoid fever. Reprint 76 from Public Health Reports, 1912.

E. P. Magruder: Volvulus; *Surg., Gynec. and Obstet.*, December, 1911.

J. R. Mohler and Adolphus Eichhorn: Contribution to the diagnosis of Malta fever; *Jour. A. M. A.*, April 13, page 1107.

W. G. Morgan: Duodenal alimentation; *Interstate Med. Jour.*, March.

P. S. Roy: Clinical value of the polygraph; *Jour. A. M. A.*, April 13, page 1147.

W. H. Schultz: Physiological studies in anaphylaxis; Hygienic Laboratory, Bull. No. 80, January, 1912.

Wm. Salant: The action of drugs under pathological conditions; Circular 81, Bureau of Chemistry, Dept. Agriculture.

Wm. Salant and J. B. Rieger: The toxicity of caffeine; Bull. 148, Bureau of Chemistry, Dept. Agriculture, April 4, 1912.

C. A. Simpson: Infantile eczema; *Jour. A. M. A.*, April 6, page 995.

W. F. M. Sowers: Exophthalmic goiter; *Va. Med. Semi-Mo.*, April 26, pp. 35 and 42.

G. T. Vaughan: Case of hydrophobia in a man; *Va. Med. Semi-Mo.*, April 26, page 29.

J. R. Verbrycke, Jr.: Gastro-enterostomy; *Charlotte Med. Jour.*, February. Abstracted in *Amer. Jour. Surgery*, April,

page 158. Also: Chronic cholecystitis; *Amer. Jour. Med. Sci.*, April. Abstracted in *Jour. A. M. A.*, April 27, page 1313.

C. P. Wertenbaker: Treatment of typhoid; *Military Surgeon*. Abstracted in *Jour. A. M. A.*, April 6, page 1037.

C. S. Wilbur: A nomenclature of diseases for the United States; *Jour. A. M. A.*, April 13, page 1134.

T. A. Williams: Case of partial tremulous scrivener's palsy; *Calif. State Jour. Med.*, March. Also: Interpretation of unusual types of poliomyelitis, *Amer. Jour. Obstet.*, March. Also: Diagnostic value of hemianopsia; *Va. Med. Semi-Mo.*, April 12, page 3. Also: Diet in nervous disorders; *N. Y. Med. Jour.*, April 6.

P. H. and M. H. S.: Municipal ordinances, rules and regulations pertaining to public hygiene. Reprint 70, from Public Health Reports, 1912.

PERSONAL NOTES.

Mrs. Mary F. Barnes died March 25. She was the widow of former Surgeon General Joseph K. Barnes, U. S. A., who was also an honorary member of this Society. See History of the Society, page 208, and halftone 8, opposite page 25. Their son, J. D. Barnes, was also a member. She was 85 years old.

Dr. N. D. Brecht, a member of the Society, is now an Assistant Surgeon in the Public Health and Marine Hospital Service; has been ordered to Seattle, Wash., for duty on the revenue cutter "Manning."

Dr. H. A. Fowler was elected Secretary, and Dr. H. G. Fuller, Treasurer, of the American Urological Association, at the meeting in New York City, April 24.

Dr. C. M. George, Asst. Surg., U. S. Navy, has been detached from the Naval Medical School, and ordered to the "Glacier."

Dr. Emma C. Starr-Keith, a member of this Society, has removed to Muskogee, Okla.

Dr. Thos. J. Kemp was married April 24th to Miss Louise Chapin Fletcher, daughter of Senator Fletcher of Florida, at All Souls' Church.

Drs. P. B. Ledbetter, R. H. Lanning, R. F. Jones and C. L. Beechig, U. S. Navy, have been ordered to the Asiatic squadron.

Dr. Louis C. Lehr attended a meeting of the American Neurological Association in New York April 24, and took part in the discussion.

Dr. L. L. Lumsden of the P. H. and M. H. S. has gone to Selma, Ala., to investigate the cause and progress of the typhoid fever epidemic there.

Dr. L. C. Mudd, Medical Corps, U. S. A., has left Washington Barracks for duty at Fort Leavenworth.

Dr. W. H. Musser died April 3, age 57. He was an honorary member of this Society. See History of the Society, page 208, and halftone 10, opposite page 33.

Dr. J. C. Parkham, U. S. Navy, has been detached from the Naval Medical School and ordered to the naval station at Tutuila, Samoa.

Miss Amy Richardson, daughter of Dr. C. W. Richardson, was married at home April 24 to Mr. Wm. Dwight Chandler, Jr., Ensign, U. S. Navy.

Dr. L. L. Sheldon, U. S. Navy, has been ordered to the "Solace."

Dr. E. M. Shipp, U. S. Navy, has been detached from the Naval Hospital in this city and ordered to the Naval Hospital, Yokohama.

Drs. Jesse Shoup and G. W. Brace have been elected members of the Board of Trade, this city.

Dr. J. R. Tryon, at one time Surgeon General, U. S. Navy, and an honorary member of this Society, died at the Naval Hospital, Brooklyn, N. Y., March 21. See the History of the Society, page 208, and halftone 9, opposite page 32.

ADVERTISEMENTS

A CARD.

I take pleasure in announcing to the medical profession that, in conformity with the general movement to popularize Ethical Preparations, I have compounded and am prepared to dispense upon prescriptions, without delay, the following preparations of the United States Pharmacopœia and National Formulary: Elixir Gentianæ Glycerinatum, N. F., Essentia Pepsini, N. F., Liquor Antisepticus, U. S. P., Liquor Antisepticus Alkalinus, N. F., Liquor Ferri Peptonati cum Mangano, N. F., Liquor Hypophosphitum, N. F., Magma Magnesiae, N. F., Pulvis Antisepticus, N. F., Syrupus Bromidorum, N. F., Tinctura Viburni Opuli Composita, N. F.

Established 1866.
Phone. West 270.

W. D. BRACE, Pharmacist,
Cor. Thirtieth and M Streets, N. W.

S. H. CUNNINGHAM, Manager

Phone, Main 5191

THE MEDICO-LEGAL AGENCY

305 CORCORAN BUILDING

Solicits accounts of Physicians and Dentists only. Fees: Collections, ordinary, 25 per cent.; by suit, 33 $\frac{1}{3}$ per cent. Prompt returns made.

GILMAN'S DRUG STORE,

627 Penna. Avenue, N. W.

Drugs, Medicines, Surgical Instruments and Physicians' Supplies.

Trusses Fitted by Expert. Satisfaction Guaranteed.

Agent for MURRAY'S OXYGEN, the purest and best, in cylinders at \$3, \$4 and \$6 each. Delivered any hour, day or night.

I beg to announce to the Medical Profession of Washington that I have prepared with the utmost care all U. S. P. and N. F. preparations, and will keep the full line in stock ready for their prescriptions.

AUGUSTUS C. TAYLOR,

Second Street and Maryland Ave., N. E.

THE W. S. THOMPSON PHARMACY,

FRANK C. HENRY, Proprietor.

703 Fifteenth Street, N. W., WASHINGTON, D. C.

We invite the Medical Profession to inspect our system of checking in the preparation of prescriptions. Prescriptions carefully compounded by Registered Pharmacists. We carry a full stock of the Best Obtainable Pharmaceuticals. Toilet Articles, imported and domestic. A full line of Steiffel's Medicated Soaps. Table and Medicinal Waters of all kinds. Have you tried our imported Lucca Olive Oil?

WASHINGTON MEDICAL ANNALS

MEDICINE IN LAY LITERATURE.*

By B. M. RANDOLPH, M. D.,

Washington, D. C.

My idea in undertaking this subject was to ascertain how members of the medical profession were regarded by intelligent outsiders in olden times. I believed that as human nature has always been the same, the same causes have always produced, in effect, the same results. The result of this research has been to confirm, in the main, the impression that my more general reading had formed, viz: that the profession has always received, as it does today, all the consideration that it deserved; that a certain proportion of its members have been preëminent for character and ability, and have received the esteem of their contemporaries; that some (and I believe a steadily decreasing proportion), have been unworthy, because of ignorance or lack of character, or both, who have lived by imposition and pretension, and who have received their just deserts from the pens of contemporary writers.

The historical papers we have had presented have dealt with the former class, and properly so, because they have been concerned with the record of the development of our art and of the sciences on which it is based. In this paper we shall hear the opinion of contemporary writers, who naturally judge the profession by the average of the time, and hence give us a better idea of their standing as a class. Some of these comments are laudatory, some are honestly and analytically critical, while by far the greater number are abusive or satirical. Many of the latter have a foundation in truth, though they are freely tainted with the license of the artistic temperament; some are merely witty; others are vulgarly abusive, without any attempt at painting a true picture—generally clumsy imitators of more clever pens.

We shall first give some extracts from authors who have commented on medicine and physicians without any particular bias, and then from those who have satirized the profession.

* Read before the Medical Society April 24, 1912.

HOMER : Menelaus wounded by Paris' arrow ; Agamemnon sends to summon the aid of Machaon, the surgeon :

" With hasty zeal the swift Talthybius flies ;
Through the thick files he darts his searching eyes,
And finds Machaon, where sublime he stands
In arms encircled with his native bands.
Then thus : ' Machaon, to the king repair ;
His wounded brother claims thy timely care ;
Pierced by some Lycian or Dardanian bow,
A grief to us, a triumph to our foe.'
The heavy tidings grieved the god-like man ;
Swift to his succor through the ranks he ran :
The dauntless king yet standing firm he found,
And all the chiefs in deep concern around.
Where to the steely point the reed was joined,
The shaft he drew, but left the head behind.
Straight the broad belt with gay embroid'ry graced,
He loosed ; the corselet from his breast unbraced ;
Then sucked the blood, and sovereign balm infus'd,
Which Cheiron gave, and Æsculapius used.'—(*Iliad*, Book IV.)

The estimate in which the military surgeon was held is shown when Machaon is wounded :

" The spouse of Helen, dealing darts around,
Had pierced Machaon with a distant wound ;
In his right shoulder the broad shaft appeared,
And trembling Greece for her physician fear'd.
To Nestor then Idomeneus begun :
' Glory of Greece, old Neleus' valiant son,
Ascend thy chariot, haste with speed away,
And great Machaon to the ships convey.
A wise physician, skill'd our wounds to heal,
Is more than armies to the public weal.'
Old Nestor mounts the seat. Beside him rode
The wounded offspring of the healing god.
He lends the lash, the steeds with sounding feet
Shake the dry field and thunder toward the fleet.'—(Book II.)

PINDAR, in the 3d Pythian Ode, describes the birth of Æsculapius, how Coronis, pregnant by Apollo, admitted the mortal Ischys to her bed ; how the god, full of wrath at the sacrilege, sent his priestess to punish the crime : " For never is the wrath of Jove's sons frustrate."

" But when her kinsmen placed the maid upon the wooden pyre, and Vulcan's mighty glow encompassed her, then did Apollo say :

" My soul will not endure to slay, in the dire sufferance of its mother, my offspring by a death most miserable" :

" Thus spoke the god, and at a single stride
He snatched the infant from the burning corse—
The fire divides before him—bore him forth,
And gave him to the centaur, Cheiron's charge,
To teach to heal the many ills of men.
Then, therefore, all who so came unto him,
Having self-caused sores, or marred in limb
By polished steel, or by the far-hurled stone,
Or bodies wasted by the summer's fire,
Or winter's cold, he cured and freed from pain.
And some he healed, tending with gentle spells ;

And some again by drinking soothing drugs ;
 And some their limbs by wrapping simples 'round ;
 And some by section.
 With us ther was a Docteur of Phisike
 In all this world ne was ther none him like
 To speke of Phisik and of Surgerye ;
 For he was grounded in astronomye.
 He kept his pacient wonderly wel
 In houres by his magic naturel.
 Wel could he fortunen the ascendent
 Of his ymages for his pacient.
 He knew the cause of every maladye,
 Were it of hot or cold, or moist or drye,
 And where engendered, and of what humour ;
 He was a very parfit practisour.
 The cause i-knowe, and of his harm the root,
 Anon he gaf the sike man his boote.
 Ful redy had he his apothecaries,
 To send him drugges and his lectuaries,
 For ech of him made other for to winne ;
 Here friendship was not newe to begynne.
 Wel knew he the olde Esculapius,
 And Dioscorides, and eek Rufus ;
 Old Ypocras, Haly, and Galien ;
 Serapyon, Rasis, and Avycen ;
 Averris, Damascien, and Constantyn ;
 Bernardin and Gatesden, and Gilbertyn.
 Of his diete mesurable was he,
 For it was of no superfluite,
 But of great norisching and digestible.
 His study was but little on the Bible.
 In sangwin and in pers he clad was al,
 Lined with taffata and with sendal.
 And yet he was but esy of dispenche ;
 He kepte that he wan in pestilence.
 For gold in phisik is a cordial,
 Therefore he loved gold in special."

—(*Chaucer, Canterbury Tales.*)

There have been three lay accounts of great epidemics of disease that are classics. They are that of Thucydides of the plague at Athens during the Peloponnesian War ; that of Boccaccio, occurring in Florence in the 14th century, told in the introduction to the *Decameron* ; and that of the plague in London in the reign of Charles II, by Defoe. The sombre description by Lucretius in the last book of his great poem *De Rerum Natura* is taken directly from the account of Thucydides.

THUCYDIDES: People in good health were all of a sudden attacked by violent heats in the head, and redness and inflammation in the eyes, the inward parts, such as the throat or tongue, becoming bloody, and emitting an unnatural and fetid breath. These symptoms were followed by sneezing and hoarseness, after which the pain soon reached the chest, and produced a hard cough. When it fixed in the stomach it upset it, and discharges of bile of every kind named by physicians ensued, accompanied by very great

distress. In most cases also an ineffectual retching followed, producing violent spasms, which in some cases ceased soon after, in others much later. Externally the body was not very hot to the touch nor pale in its appearance, but reddish, livid, and breaking out into small pustules and ulcers. But internally it burned, so that the patient could not bear to have on him clothing or linen, even of the very lightest description; or indeed, to be otherwise than stark naked. What they would have liked best would have been to throw themselves into cold water, as indeed was done by some of the neglected sick, who plunged into the rain tanks in their agonies of unquenchable thirst, though it made no difference whether they drank little or much. Besides this the miserable feeling of never being able to rest or sleep never ceased to torment them. The body meanwhile did not waste away, so long as the distemper was at its height, but held out to a marvel to its ravages, so that when they succumbed, as in most cases on the seventh or eighth day, to the internal inflammation, they still had some strength in them. But if they passed this stage, and the disease descended further into the bowels, inducing a violent ulceration there accompanied by a severe diarrhœa, this brought on a weakness which was generally fatal. For the disorder first settled in the head, ran its course from thence through the whole of the body, and even where it did not prove mortal. It still left its mark on the extremities, for it settled in the privy parts, the fingers and the toes, and many escaped with the loss of these, some, too, with that of their eyes. Others again were seized with an entire loss of memory on their first recovery, and did not know either themselves or their friends.

BOCCACIO (14th century) :

“Not such were they (the symptoms) as in the East, where an issue of blood from the nose was a manifest sign of inevitable death; but in men and women alike it first betrayed itself by the emergence of certain tumors in the groin or the armpits, some of which grew as large as a common apple, others as an egg, some more, some less, which the common folk called *gavoccioli*. From the two said parts of the body this deadly *gavocciolo* soon began to propagate and spread itself in all directions indifferently; after which the form of the malady began to change, black spots or livid making their appearance, in many cases, on the arm or thigh or elsewhere, now few and large, now minute and numerous. And as the *gavocciolo* had been and still was an infallible token of approaching death, such, also, were these spots on whomsoever they showed themselves.”

DEFOE'S JOURNAL OF THE PLAGUE YEAR IN LONDON states that the disease occurring in London and its environs in the years 1664-65 was the same as that described by Boccacio in the *Decameron*. The points that interest us most are what he tells us of the treatment, of measures for prevention and of quacks.

He refers frequently to his friend, Dr. Heath, who was a “good Christian gentleman, as well as a good physician,” and his directions for the prevention of the infection may well be taken as a

fair index of the opinion of the profession as to protection of the inhabitants.

"He earnestly persuaded me to lock myself up, and my family, and not to suffer any of us to go out of doors ; to keep all our windows fast, shutters and curtains also, and never to open them ; but first to make a very strong smoke in the room where the window or door was to be opened, with rosin and pitch, brimstone or gun-powder, and the like."

He also advised him to hold his mouth when in the streets.

The municipal sanitary provisions are more in accord with modern practice, and consisted entirely in measures of isolation. They were adopted by the Council after consultation with the College of Physicians. It would be interesting to quote them in detail, but they are too long.

Provision was made for examiners, who should regularly visit all houses in the parish for which they were appointed, to inquire as to the presence of sickness, and to ascertain its nature. Watchmen for the infected houses, to prevent ingress and egress. Searchers to examine dead bodies, to discover if they died of the infection. Chirurgeons for the same purpose. Nurse-keepers, who were quarantined in the house 28 days after the patient died. Notice or reporting promptly of any suspicious sickness by the master of the house. Sequestration of the sick. Airing the stuff exposed to infection before it be again used. Bedding, hangings and apparel were to be "aired" well with fire and "such perfumes as are requisite." Shutting up the house of any person who visited anyone sick of the plague for a period to be determined by the examiner. None to be removed from infected houses. Burial to take place before sunrise, or after sunset ; no friends to accompany the corpse ; no corpse to remain in church during service or sermon ; no children to attend ; graves to be at least six feet deep. No infected stuff to be uttered. No person to be conveyed out of any infected house. Every visited house to be marked with a red cross. Every visited house to be watched. Healthy in infected houses to be quarantined. Hackney coachmen who carry infected persons to have their coaches well aired, and to remain unemployed five or six days. Streets to be kept clean. Daily garbage service. Lay-stalls to be removed from city, and prohibition against emptying privy vaults in gardens near the city. Care to be had of unwholesome fish or flesh, and of musty corn. Beggars prohibited. Feasting prohibited. Tippling-houses to be supervised.

Signed by the Lord Mayor and the two Sheriffs.

Defoe is justly bitter against quacks, who deceive and defraud the poor. The following samples of their methods of advertising show that the breed is the same in all ages : "Infallible preventive pills against the plague." "Sovereign cordials against the corruption of the air." "Anti-pestilential pills." "The

only true plague water." "The royal antidote against all kinds of infection."

And these more elaborate ones :

"An eminent high Dutch physician, newly come over from Holland, where he resided during all the time of the great plague last year in Amsterdam, and cured multitudes of people that actually had the plague upon them."

"An ancient gentlewoman, having practiced with great success in the late plague in this city, anno 1636, gives her advice only to the female sex. To be spoke with, &c."

"An experienced physician, who has long studied the doctrine of antidotes against all sorts of poison and infection, has, after forty years' practice, arrived at such skill as may, with God's blessing, direct persons how to prevent their being touched with any contagious distemper whatsoever. He directs the poor grats."

"I have heard it was the opinion of others that it (the infectious agent) might be distinguished by the party's breathing upon a piece of glass, where, the breath condensing, there might living creatures be seen by a microscope, of strange monsters, and frightful shapes, such as dragons, snakes, serpents, and devils, horrible to behold.

Leeuwenhoek published his observations on magnifying lenses in 1675, ten years after the plague. Defoe published the "Journal of the Plague Year" in 1722.

While Shakspeare has little to say of physicians as individuals, his allusions to medical matters are numerous. The ailments of body and mind furnish him frequent metaphors, and enter largely into the developments of his plots. His allusions and adaptations are in accord with the development of medical knowledge of his time, and are complete and accurate. His descriptions of many mental and physical states are too true to avoid the conclusion that he had seen them at first hand.

One could not, in a paper of this kind, quote all the medical references in Shakspeare. It will be noted that his pathological references reflect the belief in the humoral theory of disease. There are frequent references to the movement of the blood from the heart through the veins and arteries. The Hippocratic conception of the liver as the source of blood and heat receives frequent mention. His idea of nutrition is repeated in the same story of the belly and the members that Livy credits to Menenius in the early days of the Roman republic.

Brut. You are my true and honorable wife,
As dear to me as are the ruddy drops
Which visit my sad heart."—(*Jul. Cæs.*, ii, 1.)

"For Andrew, if he were opened, and you find so much blood in his liver as will clog the foot of a flea, I'll eat the rest of his anatomy."—(*Twelfth Night*, iii, 2.)

Mention is found of ague, rheumatism, plagues, pestilences, fevers, meazels (small-pox), leprosy, bone-ache (syphilis), colic, consumption, convulsions, cramps, dropsy, ecstasy, epilepsy,

gout, chlorosis, heartburn, pimples, paralysis, hydrophobia, itch, jaundice, palsy, sciatica, sea-sickness, somnambulism, tetter (eczema), and many others. The following description of a malarial paroxysm, Cæsar the patient :

"He had a fever when he was in Spain,
And when the fit was on him, I did mark
How he did shake ; 'tis true this god did shake ;
His coward lips did from their color fly,
And that same eye whose bend doth awe the world,
Did lose his lustre ; I did hear him groan ;
Ay, and that tongue of his, that bade the Romans
Mark him, and write his speeches in their books,
Alas, it cried, 'Give me some drink, Titinius,'
As a sick girl."—(*Jul. Cæs.*, i, 2.)

Dame Quickly.—"As ever you came of women, come in quickly to Sir John : Ah, poor heart ! he is so shaken of a burning quotidian tertian, that it is most lamentable to behold."—(*Hen. V*, ii, 1.)

Doubtful diagnosis :

Falstaff.—"A pox of this gout, or a gout of this pox ; for one or the other plays the rogue with my great toe."—(*II Hen. IV*, i, 2.)

Description of post-mortem appearances after strangulation ;
Warwick (beside the murdered Gloucester) :

"See how the blood is settled in his face.
Oft have I seen a timely parted ghost,
Of ashy semblance, meagre, pale and bloodless,
Being all descended to the laboring heart ;
Who in the conflict that it holds with death,
Attracts the same for aidance 'gainst the enemy ;
Which with the heart there cools, and ne'er returneth
To blush and beautify the cheek again.
But see, his face is black, and full of blood ;
His eyeballs further out than when he lived,
Staring full ghastly like a strangled man,
His hair upreared, his nostrils stretched with struggling ;
His hands abroad displayed, as one that grasped
And tugg'd for life, and was by strength subdued.
His well proportioned beard made rough and rugged,
Like to the summer's corn by tempest lodg'd.
It cannot be but he was murdered here ;
The least of all these signs were probable."—(*II Hen. VI*, iii, 2.)

Urine examination :

Mar. "La you, an you speak ill of the devil, how he takes it at heart. Pray God he be not bewitched."

Fab. "Carry his water to the wise woman."—(*Twelfth Night*, iii, 4.)

Falst. "Sirrah, you giant, what says the doctor to my water?"

Page. "He said, sir, the water itself was a good healthy water ; but for the party that owned it, he might have more diseases than he knew for."—(*II Hen. IV*, i, 2.)

As to the standing of the physician himself, there is but little, but this little points to esteem for the better type of physician, and contempt for the charlatan. In Pericles, Cerimon, who has studied medicine, says :

"I held it ever
 Virtue and cunning were endowments greater
 Than nobleness and riches ; careless heirs
 May the two latter darken and expend ;
 But immortality attends the former,
 Making man good. 'Tis known I ever
 Have studied physics, and through the secret art,
 By turning o'er authorities, I have
 (Together with my practice) made familiar
 To me and to my aid, the blest infusions
 That dwell in vegetatives, metals, stones ;
 And I can speak of the disturbances
 That nature makes, and of her cures ; which gives me
 A more content in course of true delight
 Than to be thirsty after tott'ring honor,
 Or tie my treasure up in silken bags,
 To please the fool and death."—(*Pericles*, iii, 2.)

In "All's Well that Ends Well" the king of France is suffering from an incurable fistula (empyema), and is despaired of by his physicians.

When Helena urges the king to permit her to undertake his cure, he makes the following dignified declaration against quackery :

"We thank you, maiden,
 But may not be so credulous of cure,
 When our most learned doctors leave us, and
 The congregated college have concluded
 That laboring art can never ransom nature
 From her inaidable estate ;—I say, we must not
 So stain our judgment, or corrupt our hope,
 To prostitute our past cure malady
 To empirics ; or to dissever so
 Our great self and our credit, to esteem
 A senseless help, when help past sense we deem."

When we come to consider the witticisms, jokes and satires directed at doctors, in the old writings, we immediately realize that they are all as old as the hills ; that the pert paragraphers and contributors to the witty columns of the newspapers of today are using nothing but material that has served this purpose for centuries, merely changing the mould in which it is cast.

Dr. C. W. Dana has reduced all the jokes on doctors under a half dozen fundamental heads, which I have modified as follows :

- a. Indirect homicide.
- b. Futility of remedies, nature being responsible for results claimed.
- c. Absurdities of consultations.
- d. Personal jealousies.
- e. Ostentation and pretence.
- f. Avarice and dishonesty.

"And Asa in the thirty and ninth year of his reign was diseased in his feet, until his disease was exceeding great ; yet in his disease he sought not to the Lord, but to the physicians. And Asa slept with his fathers." . . .
 —(*Bible*, II Chronicles, xvi, 12, 13.)

AESOP (8th century B. C.) : A physician who had promised to cure a man with sore eyes used the opportunity offered by his visits to the house to steal the patient's household goods. At the end of the treatment the patient refused to pay the doctor. On being haled before a magistrate, his plea was that the doctor had not kept his part of the agreement ; that his eyes had grown worse, since before the treatment, he could at least see the furniture in his house.

Again : A doctor asked his patient how his medicine affected him? "It made me sweat." "That is well," answered the physician. On a second visit, to the same question he answered, "It gave me a severe chill." "That is well," again said the doctor. On a third visit the patient replied, "I feel as if I were bursting." "That is well," quoth the doctor again. To a friend inquiring as to his condition, the patient replied, "Indeed, I am dying by dint of being well."

Aesculapius, tempted by gold, restored dead Heraclitus to life. Jove, angry at this meddling with the fates, slew Heraclitus with lightning, and banished Aesculapius.

NICOCLES (4th century B. C.) :

"Physicians have the good fortune that the sun shines on their successes, and the earth hides their errors."

PHILEMON (360 B. C.) :

"The physician and the judge are the only persons who have the right to administer death without receiving it."

"It belongs only to physicians to lie with full liberty, since our health depends on the vanity and falsity of their promises." (*Plato.*)

"The greatest sign of a badly regulated people is to find among them many judges and doctors."—(*Plato.*)

"There is no physician who wishes health to his friends; no soldier who wishes peace to his country."—(*Unknown.*)

"Agis had not given Aristagoras a clyster or felt his pulse, but scarcely entered when he died; aconite was never so powerful. Oh ye coffin-makers, cover Agis with flowers and garlands."—(*Hedylis*, 3d century.)

"Did the physician strangle the old woman, or give her a clyster? No one knows. But the result was prompt, supernatural. The sound of the clyster was still in our ears when they placed a wreath on her bier, and the family was preparing the funeral feast."—(*Nicharchus.*)

"Socles having promised to straighten a deformity of Diodorus, placed three heavy square stones on his spine. Crushed under their weight, Diodorus died, but he had become straighter than a rule."—(*Ib.*)

Probably the original of the current "the operation was successful, but the patient died."

"Physician heal thyself." (*Anon.*)

This jibe was hurled at Christ, and has been repeated through all ages. (Luke iv, 23.) An Arabic proverb.

"When nobody is sick, the doctor is ill."—(*Syrus*, 1st cent. B. C.)

"The sick man does ill by himself who makes his doctor his heir."—*Ib.**

"Avoid the advice of physicians; with as much ignorance as zeal they kill you according to rule."—(*Seneca*, 1st cent. A. D.)

"A physician sent his son to a grammarian to study belles-lettres. The pupil's first lesson was the opening passage of the *Iliad*: 'Sing my Muse the wrath of Achilles, which plunged many valiant souls into Pluto's realm'; then the father took the boy away from school. Meeting the teacher next day, he thus explained the discontinuance of his son's studies: 'My son can learn all that with me. I plunge many souls into Pluto's realm, and to teach that, I have no need of a grammarian.'"—(*Lucian*, 2d cent. A. D.)

Lucian also wrote a witty farce, illustrating the helplessness of medicine in dealing with gout. "Tragopodagra:"

"A peasant laughed in his sleeve at seeing a physician put on his spectacles to examine the money he received, and laid them aside while examining the urine of his patients."—(*Hierocles*.)

Phy. "You are not ill."

Pausan. "It is because I do not employ you."

Phy. "You are getting old."

Paus. "Yes, it is because I have not employed you."—(*Plutarch*.)

"It has finished me, this consultation of doctors; I succumb to numbers."—(*Menander*, 340 B. C.)

"It is the great number of physicians that has killed me."—(*Hadr.*)

"If you wish to get well of I know not what disease, take I know not what kind of an herb, place it I know not where, and you will get well I know not when."—(*Old Latin Epigram*. Copied by Voltaire.)

"Cheiron became Charon."—(*Anon.*)

"Multi nomine medici, re pauci."—(*Anon.*)

DIOGENES to an unsuccessful wrestler who had turned physician:

"Courage, thou hast done well; for now thou wilt throw those who have formerly thrown thee."

"Diantus late who void of skill

Professed the surgeon's art,

Now acts in league with Pluto still

The undertaker's part."—(*Martial*.)

"The physician Herodes had stolen his patient's silver drinking cup; caught in the act, he exclaimed: 'Imbecile, what is this you are drinking?'"—(*Martial*.)

JUVENAL (42-125 A. D.) takes an occasional fling at physicians, the most celebrated being that in which he describes the mortality among Themison's patients as rivaling that among the leaves on the approach of winter.

PLUTARCH, TACITUS, SÜETONIUS and CICERO relate the part played by physicians in poisoning the enemies of the early Roman emperors.

The Holy Fathers of the Church contributed their share to the animadversions, often when medical advice conflicted with the teachings and practices of the Church.

(* The code of Napoleon annuls legacies made to physicians by their patients.)

Tertullian accused Hierophilus and Erasistratus of dissecting the living in order to create a sentiment against the dissection of the dead, a privilege granted them by Ptolemy Soter and Nicanor. These methods were afterward revived by the churchmen in the case of Vesalius. Tertullian also speaks of a brass instrument made to destroy the fœtus in utero, and declares that it was used by Hippocrates, Asclepiades, Erasistratus and Hierophilus.

St. Ambrose.—"The rules of medicine are opposed to knowledge of divine mysteries; they forbid fasting, condemn study, and forbid the exercise of profound meditation."

That these ancient criticisms have been repeated throughout the literature of mediæval and modern times I could cite a host of instances to prove. For example:

"The maid Calypso often cried
Because she was immortal.
The goose. She surely never tried
The doctor and his bottle."—(*Bantreux, Remède Infallible.*)

"If physicians did not have their cassocks and mules, they would not have duped the world."—(*Pascal.*)

"It was more necessary for the doctor to have a carriage than to cure his patients."—(*Balzac.*)

"Some of them slay in chariots, and some on foot."—(*Addison.*)

"When a nation abounds in physicians, it grows thin in people."—(*Ib.*)

1st Lady—"Oh, that is your doctor, is it? What sort of a doctor is it?"

2d Lady—"Oh, I don't know much about his ability, but he has very good bedside manners."—(*Punch.*)

ERASMUS (15th cent.).—"Medicine like rhetoric, is the art of throwing dust in the eyes."

PLINY THE ELDER (23-79 A. D.): Pliny's bitter criticisms of physicians are in serious vein, and contain much that is just. He writes especially against the Greek physicians practising in Rome. His keenest satire is directed against the habit of every prominent physician setting up a new school or method, and declaiming against all that has been accepted before, and quotes examples in detail. This criticism of Pliny is copied by every critic of medicine who succeeded him down to modern times.

"Every day this inconstant and variable art changes again. We are agitated like the waves by all the winds of the Greek charlatans; for it is evident that whoever among them has a talent for discourse, immediately becomes the absolute arbiter of our life and death."

"My object is only to complete the work of our fathers by enabling my fellow-citizens to do without physicians."

"It would be superfluous to give the innumerable receipts that Pliny wished to substitute for those of the physicians whom he so unceasingly accuses. They are a mass of absurdities, and old wives' remedies, with which superstition and magic are often mixed. For if there is a reproach deserved by Pliny, it is precisely that which he directs against physicians; he accepts the most puerile tales and the most fabulous observations, without question and often without understanding them."—(*Witowski.*)

PETRARCH wrote several invectives against doctors, mostly in a violent controversial vein. It was begun by a letter which he wrote to his patron, Pope Clement VI, who was ill at the time, warning him against physicians, and repeating the animadversions on the art that had been uttered by Pliny. It appears that some physician replied to Petrarch's attack, and that they carried on for a time a sort of pamphlet warfare. We have only Petrarch's side of the controversy, but judging from his tone his adversary must have armed his shafts with some power of stinging. Petrarch's invectives rapidly degenerate into misrepresentation, ridicule, bitterness and coarse personality, that are unworthy of serious attention.

A taunt that he lays much stress on is the characteristic complexion of doctors—that they can be recognized by the lividity and yellow color of their skins. Others have referred to the same thing, and stated that it was an acknowledged fact. Various explanations are offered for this, according to the temper of the critic: That they were diseased themselves, and a common reproach was that such should pretend to heal others; that they were weakened by their assiduity in falsehood; that it was due to their too intimate traffic with urine and excrement, and with dead bodies in dissection.

Some of Petrarch's criticisms are in better vein than the invectives, and therefore more worthy of attention, as:

"I once asked another physician, a man of great reputation and profound erudition, not only in medicine, but in many other sciences (with whom I was intimate), why he did not practice his profession after the example of so many others who were inferior to him; frowning sadly and earnestly, and with a grave and convincing manner, he answered—'I fear to commit in the sight of God, beholder of deeds of men, an impiety, in circumventing the credulous by a fraud which might cost a life. If people knew as well as I do how often the physician is of only moderate utility, or of none at all to the patient, and how much more often he is injurious, the army of doctors would be smaller and more poorly dressed. Let them ply their trade, since their hearts are so hard, and their patients so credulous. Let them abuse the simplicity of the poor, by promising them life, destroying it, and then making them pay; I am unwilling either to deceive or to kill anyone; I do not wish to grow rich by any evil whatsoever; therefore I have turned to other professions that I can practice more innocently.' I can not tell you how this answer increased toward him the affection and good opinion I had had before."

No one has ridiculed physicians more effectively and amusingly than Molière. He directs the shafts of his satire, without compunction, against all the abuses and absurdities of his time, but seems to have an especial antipathy to doctors. Various reasons have been given for this: that his landlord was a physician, and that there was a constant feud between the wives of the two; that Molière himself was an incurable consumptive, and was embittered by personal experience of the futility of their remedies; that he attributed to malpractice the death of his only son, and

also that of an intimate friend, who received a triple dose of antimony; that another medical friend was ostracised by the faculty for approving a quack remedy. While these facts doubtless influenced him, it is not necessary to account for his ridicule by prejudice alone. The absurdities, pretensions, avarice of the practitioners of the time, their pedantry, assumption of dignity, their affected dress and professional jargon could not have failed to be revealed to his clear insight, and lent themselves too readily to the satirist's pen to be rejected.

Mr. Porceaugnac is a wealthy, fat, middle-aged bourgeois from a provincial village, whom Oronte has selected as husband for his daughter. The latter being in love with Eraste, her lover plots to have Mr. Porceaugnac attainted in the estimation of Oronte. To do this he engages two physicians to declare him insane. Their method of procedure is as follows:

1st Physician. "Come, sir, take a seat." (The two doctors make Mr. P. sit between them.)

Porc. "Your very humble servant." (They each take a hand to feel his pulse.) "What does this mean?"

1st Phys. "Do you eat well?"

Porc. "Yes, and drink still better."

1st Phys. "So much the worse; this great appetite for cold and moisture is an indication of the heat and dryness that is within. Do you sleep soundly?"

Porc. "Yes, when I have supped well."

1st Phys. "Do you have dreams?"

Porc. "Sometimes."

1st Phys. "Of what nature are they?"

Porc. "Why, of the nature of dreams; what the devil is this conversation?"

1st Phys. "How are your dejections?"

Porc. "Faith, I understand nothing of all these questions; I would rather take a drink."

1st Phys. "A little patience. We are going to reason on your case in your presence, and we will do it in French to be more intelligible."

Porc. "Why so much reasoning in order to eat a little?"

The first physician enters into a long-winded, learned discourse on the diagnosis of the supposed malady, which he declares to be a hypochondriac melancholy. (It is worth while to hear his therapy.)

"... First to remedy this obstinate plethora and this cacochymia (humoral depravity), luxuriating throughout the body, I advise that he be liberally phlebotomized; that is to say that the bleedings be frequent and abundant; first from the basilic, then from the cephalic, and even, if the disease is obstinate, from the frontal vein, and that the openings be large for the thick blood to escape; at the same time to purge, to clear out, to evacuate him by proper and suitable purgatives; that is to say, by cholagogues, melanogogues, et cetera; and as the source of the whole trouble is a thick and feculent humor, or else a black and pregnant vapor, which obscures, infects, and befouls the animal spirits, it is proper that he then bathe in pure clean water, this to be followed by drinking clear whey, in order, by the water, to purify the feculence of the thick humor, and by the whey to clarify the blackness of the vapor; but before all I think it well to entertain him with agreeable conversation, songs and musical instruments; to which

it is not unsuitable to add dancers, that their movements, disposition and agility may stir up and arouse the lethargy of his torpid mind, which occasions the thickness of the blood, whence proceeds the disease. These are the remedies which I prescribe, to which will be added many other better ones by my master and senior, according to the experience, judgement, knowledge and sufficiency that he has acquired in our art. *Dixi.*"

The second physician, after a long and complimentary tribute to him who has just spoken, and after congratulating Mr. Pourceaugnac on having fallen into his hands, proceeds :

" . . . All I should wish is that the bleedings and purgations be of an uneven number—*numero deus impare gaudet*; to take the whey before the bath; to place a salt bandage on the forehead, as salt is the symbol of wisdom; to whitewash the walls of his room, to dispel the dark shadows of his mind and to give him, every hour, a small clyster to serve as a prelude and introduction to these judicious remedies, from which, if he is going to get well, he ought to receive relief. Pray heaven, sir, that these remedies that are yours may conquer the disease according to our intent."

Mr. Porc. "Gentlemen, I have been listening to you an hour; is this a play?"

1st Phy. "No, sir, we are not playing."

Porc. "What is all this, and what do you mean by this bosh?"

1st Phy. "Good. Abusive. That is a diagnostic sign that was lacking to establish the disease; this may easily turn into mania."

Porc. "Where have they placed me?" (He spits two or three times.)

1st Phy. "Another diagnostic sign—frequent spitting."

Porc. "Let's stop this and get out of here."

1st Phy. "Still another sign—restlessness."

Porc. "What is all this business? What do you wish with me?"

1st Phy. "To cure you according to our orders."

Porc. "Cure me?"

1st Phy. "Yes."

Porc. "Zounds, I am not ill."

1st Phy. "A bad sign when the patient is not conscious of his malady."

Porc. "I tell you I am well."

1st Phy. "We know better than you how you are; we are physicians, who can see clearly into your constitution."

Porc. "If you are physicians I will have nothing to do with you; I mock at medicine."

1st Phy. "Hm! Hm! This man is crazier than we thought."

Porc. "My father and mother never wanted any remedies; they both died without the assistance of physicians."

1st Phys. "I am not surprised that they have given birth to a son who is insane. (To the second physician.) Come, let us proceed to the cure: and by the exhilarating sweetness of harmony let us assuage, soften and calm the spitefulness of his spirits, which I see are ready to burst into flame."—(*Monsieur de Pourceaugnac*, Act I, Sc. xi.)

"Away I went therefore for Doctor Sangrado, and brought him with me. A tall, withered, wan executioner of the sisters three, who had done all their justice for at least these forty years. This learned forerunner of the undertaker had an aspect suited to his office; his words were weighed to a scruple; and his jargon sounded grand in the ears of the uninitiated. His arguments were mathematical demonstrations; and his opinions had the merit of originality.

"After studying my master's symptoms, he began with medical solemnity: 'The question here is to remedy an obstructed perspiration. Ordinary practitioners, in this case, would follow the old routine of salines, diuretics, volatile salts, sulphur and mercury; but purges and sudorifics are a deadly

practice. Chemical preparations are edged tools in the hands of the ignorant. My methods are more simple and more efficacious. What is your usual diet?' 'I live pretty much upon soups,' replied the canon, 'and eat my meat with a good deal of gravy.' 'Soups and gravy!' exclaimed the petrified doctor. 'Upon my word, it is no wonder you are ill. High living is a poisoned bait; a trap set by sensuality to cut short the days of wretched man. We must have done with pampering our appetites; the more insipid, the more wholesome. The human blood is not a gravy. Why, then, you must give it such a nourishment as will assimilate with the particles of which it is composed. You drink wine, I warrant you?' 'Yes,' said the licentiate, 'but diluted.' 'Oh, finely diluted, I dare say,' rejoined the physician. 'This is licentiousness with a vengeance. A frightful course of feeding. Why you ought to have died years ago. How old are you?' 'I am in my sixty-ninth year,' replied the canon. 'So I thought,' quoth the practitioner; 'a premature old age is always the consequence of intemperance. If you had only drank clear water all your life, and had been contented with plain food, boiled apples, for instance, you would not have been a martyr to the gout, and your limbs would have performed their functions with lubricity. But I do not despair of setting you on your legs again, provided you give yourself up to my management.' The licentiate promised to be upon his good behavior."—(*Gil Blas*.—*Le Sage*.)

SMOLLETT.—The pungent satires of Smollett on the medical profession are too long and too numerous to quote in full, but the following from Ferdinand Count Fathom is a good example. Fathom is an unprincipled fellow who, with little to recommend him but a pleasing person and address, woos fortune in various capacities. One rôle assumed is that of fashionable physician, which he plays with more or less success.

" . . . resolving to make his first appearance in London with some *éclat*, he not only purchased an old chariot, which was new painted for the purpose, but likewise hired a footman, whom he clothed in lace livery in order to distinguish himself from the common run of his brethren.

"This equipage, though much more expensive than his finances could bear, he found absolutely necessary to give him a chance for employment; as every shabby retainer to physic in this capital had provided himself with a vehicle, which was altogether used by way of a travelling sign-post, to draw in customers; so that a walking physician was considered as an obscure pedlar, trudging from street to street, with his pack of knowledge on his shoulders and selling his remnants of advice by retail. A chariot was not now set up for the convenience of a man sinking under the fatigue of an extensive practice, but as a piece of furniture as necessary as a large periwig with three tails; and a physician, let his merit in other respects be never so conspicuous, can no more expect to become considerable in business, without the assistance of this instrument, than he can hope to live without food, or breathe without a windpipe."

• MONTAIGNE (1580):

"All means that may bring us unto health, cannot be esteemed of men either sharpe or deare. But I have some other appearances which strangely make me to distrust al his ware. I doe not say but there may be some art of it: it is certain that amongst so many of nature's works there are some things proper for the preservation of our health. I know there are some simples which in operation are moistening and some drying. Myselfe have found by experience that radish rootes are windie, and senie leaves breede

looseness in the belly. . . . I disallowe not the use we draw from the world, nor doubt I of nature's power and fruitfulness, and of her application to our need. I see that pickrell-fish and swallowes live well by her lawes . . . so likewise physicke, I know her glorious name, her proposition, and her promise, so profitable to mankinde; but what it deseigneth amongst us, I neither honour or respect. First, experience makes me fear it, for of all I know, I see no kind of men so soon sick, nor so late cured, as those who are under the jurisdiction of physick. . . .

"There is no nation but hath continued many ages without physick: yea, the first ages, which is as much to say, the best and most happy: the tenth part of the world hath as yet no use of it.

" . . . And to say true all of this diversitie of rules, and confusion of prescriptions, what other end or effect works it, but to evacuate the belly? which a thousand home simples will do as well. . . . And beside they have a very advantageous fashion among themselves, to make use of all manner of events; for whatsoever either Fortune or Nature, or any other strange cause (whereof the number is infinite), produceth in us good or healthful, it is the privilege of physicke to ascribe it unto herself. (All the fortunate successes which come to the patient, which is under their government, it is from nature he hath them . . .). And touching ill accidents, either utterly disavow them in imputing the blame of them to the patient, by some vain reasons whereof they never miss to find a great number; as, he lay with his arms out of the bed; he hath heard the noise of a coach. His window was left open all night; he hath lain upon his left side, or troubled his head with some heavy thought. It was a good rule in their art, and which accompanieth all fanaticall, vaine and supernaturall arts, that the patients' belief must by good hope and assurance preoccupate their effect and operation. Which rule they hold so far forth that the most ignorant and bungling horse-leech is fitter for a man that hath confidence in him, than the skillfullest and learnedst physician. . . . Whoever saw a physician use his fellowes receipt without diminishing or adding somewhat unto it? whereby they greatly betray their art and make us perceive they rather respect their reputation, and consequently their profit, than well-fare or interests of their patients.

"Before the Peloponnesian War there was no great news of this science Hippocrates brought it into credite. Whatsoever he established Chrysippus overthrow. Afterward, Erasistratus, grandchild to Aristotle re-envert what-ever Chrysippus had written of it. After these, start up the Emperikes, who concerning the managing of this art, took a new course altogether different from those ancient fathers. And when their credit began to grow stale, Herophilus brought another kind of physicke into use, which Asclepiades when his turn came, impugned, and in the end subverted. Then came the opinions of Themison to be in great authority, then those of Musa, and afterward those of Vectius Valens, a famous physician, by reason of the acquaintance he had with Messalina. Moreover their authors hold that there is no kind of physicke, but hath some hurtfull part in it. And if those that fit our turn doe in some sort harm us, what must those do which are given us to no purpose, and out of season? As for me, if nothing else belonged thereunto, I deem it a matter very dangerous, and of great prejudice for him who loathes the taste or abhors the smell of a potion, to swallow it at so inconvenient hours, and so much against his heart. And I think it much distempereth a sick man namely, in a season he hath so much need of rest. . . . The very promises of physicke are incredible. For being for divers and contrary accidents which often trouble us together, and with a kind of necessary relation to one another, as the heat of the liver and the cold of the stomach, they will persuade us with their ingredients this one shall warm the stomach, and this other cool the liver; the one hath charge to go directly to the reynes, yea even to the bladder, without enstalling his operation anywhere else, and by reason of its secret propriety, keeping his force and virtue all that long way, and so full of stops and lets, untill it come to the place to

whose service it is destined. Another shall dry the brain, and another shall moisten the lungs. Of all this hotch-potch having composed a mixture or potion, is it not a kind of raving to hope their several virtues shall divide and separate themselves from out such a confusion or commixture, to run to so diverse charges? I should greatly fear they would lose or change their tickets and trouble their quarters."

"Loe, heere how they in all their discourses, juggle, dally, and trifle at our charge, and are never able to bring me a proposition, but I can presently frame another to the contrary of like force and consequence. Let them no longer raile against those who in any sickness suffer themselves gently to be directed by their own appetite, and by the counsell of nature, and who remit themselves to common fortune. . . . Amongst so many millions of men, you will scarcely meet with three or four that will duely observe, and carefully keep a register of their experiments. . . . We should peradventure discern some show of light, if all the judgments and consultations of men were known to us.

"The art of physick is not so resolute, that whatsoever we do, we shall be void of all authority to do it. She changeth and she varyeth according to climats; according to the moons; according to Fernelius and according to Scala. If your physitian think it not good that you sleep, that you drink wine, or eat such and such meats, care ye not for that; I will find you another that shall not be of his opinion."—(*Essays*, Lib. III, Cap. xiii.)

BACON (1561-1626): "No doubt, therefore, if physicians, leaving generalities for a while, and suspending their assent, would advance toward nature, they might become masters of that art of which the poet speaks."

In the following he gives a remarkable forecast of the lines along which modern medicine has progressed, *i. e.*, by attending to case records, morbid anatomy and animal experimentation :

". . . Medicine, therefore, has been rather professed than labored, and yet more labored than advanced, as the pains bestowed thereon were rather circular than progressive; for I find great repetition and but little new matter in the writers of physic. . . .

"And first we may note the discontinuance of that useful method of Hippocrates, in which writing narratives of particular cures with diligence and exactness, containing the nature, the cure, and the event of the distemper. This discontinuation, therefore, of medicinal reports we find deficient, especially in the form of an entire body, digested with proper care and judgment. But we do not mean that this work should extend to every common case that happens every day, which were an infinite labor, and to little purpose; nor yet to exclude all but prodigies and wonders, as several have done; for many things are new in their manner and circumstances, which are not new in their kind; and he who looks attentively will find many particulars worthy of observation, in what seems vulgar. . . .

"So the marks and impressions of diseases, and the changes and devastations they bring upon the internal parts, are to be diligently observed in different dissections, viz., imposthumes, ulcerations, solutions of continuity, putrefactions, corrosions, consumptions, contractions, extensions, convulsions, luxations, dislocations, obstructions, repletions, tumors, and preternatural excrecences, as stones, carnosities, wens, worms, etc., all which should be very carefully examined and orderly digested in the comparative anatomy we speak of; and the experiments of several physicians be here collected and compared together. But this variety of accidents is by anatomists either slightly touched, or else passed over in silence.

"That defect in anatomy, owing to its not having been practiced upon live bodies, needs not be spoken to, the thing itself being odious, cruel,

and justly condemned by Celsus. . . . Wherefore if we would consult the good of mankind, without being guilty of cruelty, this anatomy of live creatures should be entirely deserted, or left to the casual inspection of churgeons, or may be sufficiently performed upon living brutes, notwithstanding the dissimilitude between their parts and those of men, so as to answer the design, provide it be done with judgment. . . ."

"And these are the things wanting in the doctrine of medicine for the cure of diseases; but there still remains one thing more, and of greater use than all the rest, viz., a genuine and active natural philosophy, whereon to build the science of physic."—(*Essay on Advancement of Learning.*)

It would be easy to multiply extracts such as the preceding indefinitely, but I would not unduly extend an article already too long. They are enough to serve my purpose, which is to show that the same failings and vices in our art and its practitioners have existed and been recognized since its infancy; that the good and bad tendencies are not characteristic of the art itself, but are those inherent in human nature. We have undoubtedly made progress, owing to the freer communication and criticism furnished by a well-developed literature and the experimental study of natural law. Our shortcomings (in our own eyes, at least) are not so flagrant as in the past, nor are their results so injurious to our patients. We pay more attention to that part of the Hippocratic admonition to cure *tuto*, show occasional regard for the *jucunde* and less for the *celeriter*. The standards and qualifications of practitioners are obviously improving, and there seems to have been made a serious beginning to the problem of limiting the injurious activities of unscrupulous quacks.

I suppose there are very few conscientious practitioners of medicine (except, perhaps, surgeons) who have not had blue days in their careers, when they have wondered whether they were of any use—whether humanity would not, on the whole, be as well off without them. These waves of pessimism occur to all reflecting men in every walk of life. It seems we should find the answer in the fact that men have always employed us. No matter what criticisms have been showered on our heads, no matter how futile and absurd our methods, humanity has always sought the aid of art to relieve its suffering, whenever relief was offered. This does not prove that the art itself was in any way worthy of confidence, but it does show that there is a deep-lying instinct in human nature that relief from suffering is an obtainable goal. Perhaps the most convincing argument as to the reality of the extra-material, of the spiritual factor in connection with life is the persistence with which the human race has in all times and places adhered to it. Expression of this instinct is often shown in the most absurd fashion. What religion is there whose tenets have not been ground to powder by the arguments of rationalists? Yet what absurdities of spiritual charlatanry are there but have had their adherents? Possibly race instinct is a surer guide to principles of truth than the rationalization of logic.

At any rate, the faith of the race has been largely justified by the results in medical progress in the past fifty years. The elucidation of the nature of infection, made possible by Pasteur, would be sufficient, if it stood alone. The danger to ourselves is in thinking we have reached the summit of the mountain we are trying to scale. Naturally, the doings of our own generation loom large in our perspective, but we ought to get away from a distorted view and realize that our time is but a step on the stairway of progress in science, and that future generations will have their part in its advancement. These reflections will, I believe, increase our humility, help our philosophy, and clarify our view of life. And, in the meanwhile, for our material consolation, we may reflect that Lord Byron's stanza is likely to hold true for a long time to come :

"This the way physicians mend or end us
Secundum artem ; but although we sneer,
In health, when ill, we call them to attend us,
Without the least propensity to jeer."—(*Don Juan*, Canto X, St. 42.)

REFERENCES :

"Le Mal que l'on a dit des Médecins.—*Wilowski*.
Charaka Club Proceedings.—*Dana*.

Dr. Tom A. Williams said that the paper had taken a somewhat different line from what he had anticipated, in that it had dealt rather with the doctor as he appears in literature than with the attitude of literature toward medicine in general. The latter aspect of the subject was more particularly dealt with in the generalizations at the end of the paper. He agreed with that pragmatic philosophy which found a certain utility in criticism. It would have been interesting to compare the classic comments with modern literature. He spoke of the view point of the romanticist who uses medicine and medical situations only as they influence his story. In this respect the relation of literature to medicine has merely a humanistic interest. There is at present a tendency to a journalistic treatment of medical affairs, and a host of pseudo-scientific writings are promulgated which may be dangerous in so far as they assume to be true. This is especially true of stories involving the pathology of the psyche, because every writer assumes to know it all and does not recognize that psychology is a new, incomplete and not generally known science. But writers assume to know enough accurately to describe obscure psychological states. When such writings are merely descriptive they may be valuable, but when they become explanatory they are apt to be defective.

Dr. Frank Baker was unfortunate in not hearing the beginning of the paper, as he had found that portion which he had heard most interesting. Perhaps Dr. Randolph would like to revise his

opinion upon the state of medical anatomy in the time of Bacon, could he look over some contemporary books in Dr. Baker's possession. He rather thought it unprofitable to pay much attention to lay criticism, as it is founded upon misapprehension and ignorance. Such criticism is not to be disdained, of course, but it should not sway physicians in the pursuit of science on internal lines. He referred to the novel "Paul Faber, Surgeon," by Geo. MacDonald, a Scotch novelist. The following was the situation: A beautiful lady, very religious; Faber, the surgeon, an atheist; the lady has a baby, and, for postpartum hemorrhage, Faber is called in. The situation is dangerous, and to save the day Faber performs transfusion by drawing from his own arm blood which he injects into the veins of the lady by means of a large syringe. The lady recovers. Such treatment of medical situations is absurd, and so it does not seem wise to allow lay literature to influence us very much.

Dr. Randolph said that the paper had been prepared for presentation to the Medical History Club, and it was only because a joint meeting with the Medical Society had been arranged that he had ventured to present the subject. He replied to Dr. Baker that he had in mind the diligence and care exercised in the study of anatomy in Bacon's day rather than the content of the anatomical knowledge of the time. He had dwelt on the slights, jokes and jeers aimed at the profession to show that all of them are of remote antiquity, and that the present-day slurs are merely repetitions of old sayings. But he could not agree that these criticisms from the pens of great writers should be ignored or regarded lightly; they are a distinct part of a history of our art, and when one reads the references to medicine in the essays of Montaigne, self knowledge and the knowledge of others must indicate that they have truth in them which may be helpful to the improvement of the profession if rightly applied.

THE CONTAGIOUSNESS OF DISEASES THAT AFFECT THE SKIN.*

BY JAMES C. MCGUIRE, A. M., M. D.,

Washington, D. C.

The terms contagious and infectious mean the transference of disease germs from one individual to another, but there is great ambiguity and want of precision in medical usage in their proper differentiation.

Even in medical dictionaries we may find the definitions so confusing that it is difficult, if not impossible, to differentiate one from the other; for instance:

* Read before the Medical Society, May 1, 1912.

Infectious is defined as "of the nature of infection ; contagious."

Infection : "The communication of disease germs."

Contagious : "Having the character of contagion."

Contagion : "The process of transfer of specific diseases."

But for the purposes of this article contagious will imply that there must be direct contact before the disease can be transmitted, such as from the parasitic diseases of the skin, while infectious will mean that a disease may be conveyed from one person to another without the necessity of such contact. It is well, too, to remember that every contagious disease is infectious, but all infectious diseases are not necessarily contagious. Malaria and yellow fever are infectious but not contagious. Leprosy and the exanthemata are both contagious and infectious.

It has long been recognized that an individual apparently in normal health can transmit an infectious disease. These persons are known as "carriers," and are of two classes, designated as contact or primary and secondary carriers, the former referring to those who have never to their own knowledge had the disease, the latter to those who have had the malady, though it may have been many years previously. This subject of "carriers" has recently been most interestingly presented in an article by Willard J. Stone, B. S., M. D., appearing in the April number of the *American Journal of Medical Sciences* ; here he refers to a report by Lumsden and Woodward, who found a typhoid carrier in a dairy, responsible for 54 cases of the disease among the dairy customers ; this carrier having had her attack eight years previously. He also refers to the report of Gregg, in the *Boston Medical and Surgical Journal*, July, 1908, as having reported a case of a boarding house mistress who served as a source of infection in seven cases of typhoid 52 years after her own recovery. Other cases are reported elsewhere of so-called "carriers" transmitting the disease to others for even 60 years after their recovery, but there is no proof that they did not themselves have a mild attack of typhoid fever that was not recognized, or that they had not come in contact with the disease in all these years.

Ignoring those diseases of mixed origin, which usually take on the character of both conditions, it is impossible for us to understand how any distinct malady or any other thing, for that matter, can originate of itself. In other words, the first cause, the beginning, is beyond our comprehension. All organisms, animal as well as vegetable (and even now there is no incontrovertible proof that all bacteria belong exclusively to either class), must have always existed. In other words, I do not believe that there is such a thing as a new disease produced by bacteria, though, of course, they are more prevalent at one time than another. They have always been in existence, but the observer was incapable of recognizing them.

Yet in medical literature there are records of certain diseases

that first affected humanity at certain dates ; in some cases even the particular year is given. Syphilis is said to have first appeared in Europe in 1494, brought over by the sailors who were with Columbus in his second voyage to this country ; or that it appeared in the latter part of the 15th century, being due to the soldiers under Charles VIII, who had contracted the disease while at war with Italy.

Until 1761 chicken pox was considered a new disease, if it was not a modification of smallpox.

The first accurate account of scarlatina was given by Dr. Doring, of Breslau, in 1625 ; previous to that time it was usually believed to be a malignant form of measles. It is supposed to have made its first appearance in the United States in 1735. Even such an eminent authority as Dr. Rush said, less than 100 years ago : " No physician would be likely to see it more than once in a lifetime."

The same is true of other diseases ; the explanation is that though these maladies always existed, more or less, they were confounded with other troubles ; syphilis, or great pox, at one time was supposed to be identical with variola, or smallpox ; measles, for many years, was the general name given to all eruptive diseases ; pertussis, or whooping cough, was a name first given to *la grippe*, from which the disease was not differentiated till the latter part of the 16th century, although *la grippe* has been known since the 12th century, and was recognized in this country during the Revolutionary War ; it is said " to have disappeared from the personal knowledge of American physicians until 1890."

Most of the above historical facts have been obtained from the excellent treatise entitled " Contagious diseases of childhood," by Dr. Marcus P. Hatfield, of Chicago.

But to refer more particularly to infectious maladies as we encounter them at the present time let us consider how we may best guard against contagion.

The Health Department of the District of Columbia requires the attending physician to report certain contagious diseases ; among others, those in which there occurs an eruption upon the skin, such as scarlatina, measles, variola varicella, and typhoid fever.

The chief aim of the Department is, of course, to protect the community from contagious diseases, but with the least annoyance to the family and the public at large, as well as the attending physician. It is necessary, of course, for the Department to make certain regulations and the physicians to be compelled to reasonably obey them. This is, of course, as it should be, but authorities are by no means agreed as to the infectious period of scarlet fever, and though it is an accepted fact that the primary stage of scaling is contagious, many deny that it continues

throughout the whole period of desquamation. Dr. A. H. Doty, formerly Health Officer of the port of New York, who has observed as many cases of contagious diseases as any man in this country, says in his recent treatise *Prevention of Infectious Diseases*: "There is good reason to believe that the danger from desquamation in measles and scarlet fever is greatly exaggerated and that it may prove to be an unimportant if not negligible factor in the transmission of these diseases." He considers, too, that the use of bichloride and carbolic acid is unwarranted and unnecessary: "soap and water are all that are required to remove the dead skin."

The Metropolitan Asylum Board of London, England, in the year 1898 made a thorough investigation of these diseases and reported: "We would suggest that possibly too much importance has been hitherto attached to the infection of the skin during the latter weeks of scarlatina convalescence." It is even impossible at times to be sure that the desquamation is really due to scarlet fever; infrequently we can not distinguish it from that of measles, though, of course, as a rule the scales in the former disease are laminated and the latter are furfuraceous; the reverse may be true. I have elsewhere reported scaling of the skin following eruptions due to drugs either internally or externally administered, that could not be distinguished from the desquamation due to scarlet fever.

In Professor Osler's Seven-Volume Edition of *Modern Medicine*, Volume II, it is said: "Quinine in some individuals produces an eruption followed by desquamation which can in no way be distinguished from that of scarlet fever." Others mention the local application of the bichloride and iodoform and the internal administration of strychnine, copabia and other drugs, which are designated in text books as causing a scarlatiniform erythema. The Roentgen ray, too, may cause desquamation of the skin, even without previous eruption, that can not be distinguished from scaling due to measles or scarlatina. I know this to be true from personal experience. Dr. Besnier, of Paris, has described a scarlatiniform erythema in which the clinical condition could not be distinguished from scarlatina, the desquamation lasting from a few days to even five or six weeks. As to leprosy there are probably more erroneous ideas in regard to its contagiousness than any other disease that affects the skin. The generally accepted opinion (even among many physicians) is that it is almost as contagious as smallpox; but those who have seriously studied the disease, who have seen the most cases, and are the best qualified to judge, are thoroughly agreed that it is not as contagious as is generally believed. I myself have seen and studied a number of cases, among others that of Mr. Early, who a few years ago was isolated in camp in this District. So far as I am aware I was the only physician here who made an

examination of this patient, with the exception, of course, of a Health Department official. At that time this unfortunate man was surely between the devil and the deep sea; the Government deprived him of his pension because he did not have the disease, the local Health Department officials were emphatic in their statements that he was a leper. The Government has now restored his pension by order of the President, who has appointed him as a nurse to another so-called leper at the Marine Hospital near Tacoma, Washington.

According to a report of the Associated Press in recent issues of the daily paper a graphic description is given of a shipwreck on the Florida coast in which there were several cases of leprosy, and on account of this it was said that it was impossible to get anyone to go to the rescue. The paper further says: "The authorities in Washington fear that should the ship run ashore it is possible an *epidemic* of leprosy might spread from her passengers." Of course the Government officials made no such statement, but why should the Associated Press so needlessly alarm the public, for there has never occurred in this sense an epidemic of leprosy, and the disease, as I have said before, is only slightly, if at all, contagious. In fact, Prof. Kaposi, of Vienna, considered the greatest authority in the world upon the diseases of the skin, declared that leprosy was not contagious, and though the majority of dermatologists do not now agree with such an emphatic statement they *are* of the opinion that leprosy may be considered as one of the least contagious of infectious diseases. In the brief space here allowed me I can only shortly summarize a few facts as to this malady and give several reasons why it should be considered as only mildly contagious.

There are always a hundred or more cases of leprosy walking the streets and freely mingling with the community in New York, London and Paris, and other large cities, and yet there has never been known an authenticated case of the transmission of the disease under such circumstances. Physicians and nurses do not contract the disease in this latitude from those for whom they care, and though the attempt has been made a number of times to inoculate men as well as animals, it has never succeeded. Then, too, there is no question but that a large number of persons have lived with the lepers with impunity. To again quote Prof. Kaposi, he says that leprosy is extremely common in Japan, where many persons sleep together naked under one cover, yet no case of contagion has ever been observed. Again, he also says: "married couples, one of whom was a leper, while the other was not, were not affected, despite the fact that they slept together for many years, and without communicating the disease. No child was ever born with leprosy, though possibly as in other infectious maladies, there may be an inherited tendency (a so-called idiosyncrasy) to take on the disease. Since the discovery

of Hansen and Neisser of the particular bacilli causing the disease, it would seem as if heredity should be excluded as a causative agent. In 1891 Prof. Hansen reported 160 children born of leprous patients in Norway, who had emigrated to this country, yet not a single one became a leper. Patients with leprosy are even employed as nurses in a number of hospitals abroad and in this country, in the great St. Louis Hospital of Paris, the largest in the world, devoted to the treatment of skin diseases, leprous patients freely walk the wards.

I saw the same thing in hospitals in New York, twenty-five years ago, while a student at the post-graduate schools in that city; leprous patients would shake hands with the students, sitting by them, and describe their symptoms, yet there was never known a case, under such circumstances, that the disease was conveyed. In fact, it is now recognized and accepted by the best informed students of infectious diseases that there must be a peculiar condition of the individual, a susceptibility that allows the germs to grow (good ground in which to flourish), also a certain environment, such as climate and soil and unfavorable hygienic surroundings, before the disease can be transmitted.

The earliest mention of cutaneous maladies is found in the Old Testament, and it is generally believed that the several skin lesions referred to the disease we now know as leprosy; but if we read the biblical description carefully we will find that it cannot be a clinical account of this particular disease, for it is said that Aaron, the priest, was supposed to be able to make a diagnosis by observing the case for only a few weeks; after graphically describing the hairs as being white with quick, raw flesh and the lesions as deeper than the skin. Further, "If the plague is dark and spread not in a few weeks he is clean, but if it spread it is leprosy." Of course this is not the clinical description of the disease as we now recognize it. In fact, Prof. Kaposi declares that this so-called *Zaarath*, as described in Leviticus, signifies nothing more nor less than an angry, possibly contagious, skin disease, incurable or nearly so. He says, too: "It is a term which may be applied to leprosy, but also to scabies and certainly to mere burns." Dr. George Henry Fox, of New York, says: "The same mistake was made in later centuries; the numerous leper houses established throughout Europe at the time of the Crusaders doubtless contained a large proportion of other diseases, such as psoriasis."

Finally, referring to the contagiousness of diseases that locally affect the skin, there are over 150 that are classified as skin diseases; but, contrary to the generally accepted ideas, though these diseases are so repulsive in appearance, not one-tenth of them are really contagious; *Molluscum contagiosum*, *Impetigo contagiosa*, the diseases due to the invasion of the *Trichophyton* fungus, *Chromophytosis*, *Favus*, *Scabies*, *Pediculosis*, *Seborrhea*

sicca (dandruff), some forms of so-called Eczema, Furunculosis, Anthrax, Leprosy, and those skin lesions due to the invasion of the tubercle bacilli, including Lupus and Scrofuloderma. Of this group, Furunculosis, Seborrhea, Tuberculosis of the skin, and Leprosy are now regarded as the least liable to be conveyed from one to another.

There are many subjects of interest pertaining to the contagious maladies, but here we can only refer to a few. So-called eczema, the most frequent disease of the skin which we encounter, is well defined by Dr. Norman Walker, one of the eminent dermatologists of England, as: "The term applied to any wet or dry inflammation of the skin, of the cause or nature of which the observer is ignorant." Better still, he says that it is: "A name which is a cloak for ignorance." We may regard these definitions the more true when we consider how many lesions of the skin that were formerly classified under the head of eczema are now regarded as distinct diseases. Scabies was at one time believed to be only an eczematous inflammation, as was Impetigo contagiosum, and Ecthyma an aggravated form of the latter condition, and even Eczema marginatum, that is now known to be due to the trichophyton fungus, infecting special localities. No doubt many other forms of eczema will eventually be differentiated from this name, for as we see, it is only a designation given to the many diverse conditions of the etiological factor of which we know but little.

The term alopecia means a partial or complete loss of hair irrespective of cause, but we can here only refer to a few forms that may be of special interest; the primary loss of hair may result from an inherited tendency, but we know, too, that there is a condition of the scalp designated as seborrhea sicca (dandruff) that is one of the most prolific causes of the loss of hair. Dandruff is without doubt to a certain extent contagious, being due to a parasite known as Unna's Micrococcus, the Staphylococcus albus or to some other organism that has not yet been described.

Barbers and hairdressers are often complained of as the chief cause of transmitting dandruff on account of not taking proper care of their utensils, but as their custom is to thoroughly clean these with soap and boiling water, all that is really necessary, it is seldom that the germ can be spread in this way, for if this were not true most of us would be without hirsute adornment.

Another form of loss of hair is known as alopecia areata, meaning a condition in which one or more areas of complete baldness suddenly appear upon any portion of the skin, the scalp, of course, being the most frequently affected. This disease should take on added interest when we know that one of the very richest men in the world is suffering from a chronic universal form of the trouble and would give very much money to be cured; it is said that he has not a hair upon any portion of his body. Der-

matologists differ as to cause of this trouble, some declaring that all cases are due to a parasite, others that it is of neurotic origin, still others that there are two forms, one parasitic and the other neurotic. A number of years ago I published a record of several cases of alopecia areata that I had recently observed, in every one of which I believed I was able to trace a neurotic origin.

As to erysipelas, some text books refer to taking cold as a causative agent, yet it seems more reasonable to believe that it is always due to an infectious germ, finding its way to the system through some portion of the mucous membrane or abrasion of the skin. The symptoms of the disease shows such a close analogy to those usually ascribed to the acute axanthemata, I see no reason why erysipelas should not be included in this classification; a constitutional disease accompanied with a skin eruption, followed by desquamation that at times can not be distinguished from scarlatina.

Finally as to the tubercle bacilli as they affect the skin: twenty years ago—to be exact, May, 1891—I read a paper before the dermatological section of the American Medical Association entitled “Lupus Vulgaris in its relation to Tuberculosis.” Even at that time the question of the causation of lupus and scrofulosis was by no means settled; in fact my conclusion at that time was “not proven.” In preparing the essay I corresponded with the best known dermatologists throughout the world, asking them to reply to certain questions, particularly if they considered lupus as a manifestation of tuberculosis. I received twenty-five answers, seventeen were in the affirmative, yet at even that late date six physicians with world-wide reputations replied in the negative; that is, they did not consider either lupus vulgaris or scrofulosis as due to the tubercle bacilli, but of course there is now no question but that these diseases are of infectious nature.

Dr. Simpson had enjoyed the paper. We see so few cases of leprosy in America that one is hardly able to talk authoritatively on that subject. Dr. Dwyer, of New Orleans, states that there has been some spread of leprosy from the colony there; also, some of the priests and sisters of charity in the Sandwich Islands have been infected. The disease has been transmitted to mice by San Francisco investigators.

Dr. Masterson had recently had occasion to look up the literature with respect to the contagiousness of the desquamated skin after scarlet fever; he was interested to find so many writers who deny that scarlet fever scales are carriers of the infection. Anderson, of the Public Health and Marine Hospital Service, has been unable to transmit measles by means of the scales. Reports from German scarlet fever hospitals deny the contagiousness of scarlatina scales. In England an investigation was made in which the post hospital history of 2,500 completely desquamated children was noted, and 4.8 per cent. secondary cases resulted;

a second 2,500 children were released from hospital at the end of 28 days (whether desquamating or not) and 4 per cent. of secondary cases were found.

As to leprosy, he had noted with interest that at the Skin and Cancer Hospital, New York, the only patient with leprosy acted as doorkeeper, and he unluckily died of some other disease. At Randall's Island there have been a number of cases, but none was regarded as a menace to public health. Some authorities say that sexual intercourse is necessary to transmit leprosy.

Dr. Chappell remarked upon the contagiousness of scarlet fever scales; he looked up the subject a few years ago and found considerable doubt expressed in the literature as to whether the desquamated skin may bear the infection. He called attention to the contagiousness of the discharges from the nose, throat and ears. As to the ultimate beginnings of diseases he could conceive of the immemorial existence of the germs of a given disease with the appearance of the disease itself in man only after the race had acquired a susceptibility to infection by that particular organism.

Dr. E. L. Morgan asked those who doubt the intense contagiousness of scarlet fever to account for the following instance in his own family: a relative had died of virulent scarlet fever; the body was conveyed by train far into the State of Virginia, and thence by wagon a long distance into the country in a county in which no scarlet fever existed; very soon thereafter an epidemic of scarlet fever broke out and several victims died.

Dr. Lemon had often wondered if in instances such as that cited by Dr. Morgan the type of infection was of especially intense virulence; it seemed to him that the type of scarlatina seen nowadays is of rather attenuated virulence. As to the contagiousness of leprosy, he had visited the leper hospital in Havana where about 150 lepers are cared for; the hospital is about 200 years old, and it is said that no instance is of record or tradition of transmission of the disease from the inmates of this hospital to others.

Dr. I. S. Stone was interested in the question of the exact difference between infectious and contagious. The careless use of the two words by physicians may be responsible for the uncertainty as to their exact meaning. It had always seemed to him that infectious should be the only word necessary.

He inquired what was the matter with Father Damien, who died in a leper colony, and suggested the possibility of confusing pellagra and leprosy.

Dr. S. B. Muncaster had visited the leper hospital just outside Jerusalem; he had talked with the doctor in charge, who told him that the only precaution he took against the disease was to protect his hands if they happened to be abraded.

Dr. G. Wythe Cook spoke of instances in his personal experience where casts of epithelium from the feet or hands of scarlet fever cases have been passed around as objects of interest without

any secondary cases developing. The exact use of the word contagious would make malaria a contagious disease, as the patient must come in contact with a mosquito in order to contract the disease.

Dr. McGuire said that it seems that whatever may be said as to the exfoliated skin as a disseminator of scarlet fever, it seems pretty well established that the discharges from the nose and throat are the most important factors. There should be no confusion as to the meaning of the word contagious; it merely describes those diseases which may be acquired by coming in the immediate environment of one suffering from the disease or coming in social contact with persons or things that have been associated with such a patient.

As to the death of Father Damien in a leper colony, it must be remembered that he lived for many years in constant and immediate association with the inhabitants of the colony, and these very facts demonstrate that leprosy is acquired with difficulty.

THE RELATION OF THE PROFESSOR TO THE HOSPITAL, THE COMMUNITY, THE MEDICAL SCHOOL AND THE PROFESSION. —ABSTRACT.*

BY JAMES DUDLEY MORGAN, A. B., M. D.,
Washington, D. C.

There is a general unrest in the medical world, extending somewhat to the administration boards of the hospitals, as to what position the clinician should occupy in reference to the hospital, the community, the medical school and the profession.

A physician or surgeon in whom the administration board of a hospital has confidence, should be given the most generous, solid and complete authority in all things which directly or indirectly have to do with the management of the sick. His associates and assistants should be either his appointees, or receive his indorsement. To be fair to the hospital, the reputation of which will reflect the standing of its visiting staff, the first and best efforts of the clinician should be given. As has been stated by noted clinicians and consultants: "there is no reason why the clinician should not practice, provided it does not interfere with his teaching, which should be paramount;" † "he should practice, but only in consultation, and never to occupy more than half his time, the other half to be given to the hospital." ‡

* Read before the Medical Society, April 17, 1912. The complete article appeared in the *Med. Record*, N. Y., June 8, 1912.

† Extract from letter of Dr. J. M. T. Finney.

‡ Opinions of Dr. W. W. Keen and Dr. R. C. Cabot.

As to the equipping and the maintenance of the laboratories in a hospital, where much teaching is done, there are many who insist that the medical school should bear a good part of the expense. A large dispensary service in connection with every hospital and medical school should be encouraged. "There is a general unanimity of the Committee of One Hundred on the Standard Curriculum for Medical Colleges in the belief that in clinical lectures actual patients should furnish the text. We all realize that the medical school which actually does well all it claims in its catalogue is very uncommon."*

Some, but not frequent, opposition has been raised to the use of ward cases for teaching purposes. In the experience of the writer this repugnance or opposition of the patient to be used before a medical class is easily overcome if the situation is intelligently explained to the patient and a mien of coercion or authority is never used. Most of the sick rather seek a presentation of their cases.

Few outside of the medical profession realize the tremendous outlay of time, money and endurance that is required from this generation of practitioners, if they are really to be in the front rank of their profession. Outside of the honor that one has of being a clinical professor the time spent in the preparation for clinics and attention to the sick poor is shamefully remunerated by most medical schools, hospitals and municipalities.

It is expected and now being demanded by some leading medical schools, that their professors in their practical departments, such as those of medicine, surgery and obstetrics, should bestow all their time and efforts on the hospital and the clinics; "on general principles, the professor of clinical medicine should do only a consulting practice. In an ideally-conducted institution, I don't see how he could do more and attend to his duties of teaching and study.†

Some strongly contend that the fame and usefulness of a medical school will be greater by having its professors practice in the community and consult with their professional brethren.‡ "If students are to be taught how to care for the sick in their own homes and in general practice, a part of the instruction should be given by men who have experience acquired outside of hospitals."§ "The last objection could be very easily removed by appointing those to clinical professorships, who have had for a considerable time the responsibility of managing patients in private practice."||

A medical school without a hospital is a misnomer, and "ultimately every hospital forming part of a medical school should be endowed."¶ "To keep a hospital up to the highest standard of efficiency, from a scientific standpoint, the hospital should be

* Report of the Committee of One Hundred, Amer. Med. Assoc.

† Extract from a letter of Dr. W. S. Thayer.

‡ Opinion of Dr. Charles L. Green.

§ Reply of Dr. William Fitch Cheney,

|| Extract from letter of Dr. F. Forcheimer.

¶ Reply of Dr. Llewellys Barker.

connected with a teaching institution. The more openly and candidly the work of the hospital is carried on before the public, the greater the benefit to the profession and to the community. When medicine was empirical it was a dangerous thing to give it publicity, but the more the public know of scientific medicine the greater advantages they receive from it and the greater respect they have for it."*

It may be said that it is the consensus of opinion of a large number of the leading clinicians in the United States that the clinical professor—much more if he be academic also—should not practice (do a family practice), but his spare time from teaching and research could be given to consultation. "No man should accept or hold a professorship in a clinical branch unless he can give the greater part of his time to his teaching."† Even consultation must be *limited*, so that it will not interfere with his chief obligation, that of a teacher. If his services as clinical professor are of any value, he must spend at least one-half his time (four to six hours daily) in a study of the material (patients, laboratory, etc.), and in class work. He cannot do this and serve a family practice."‡ "It is doubtful if a practitioner in the broad sense can have a place as clinical professor in the best medical schools."§ "In general it would not be well for the professor of medicine or surgery to do a family or general practice, because this necessarily makes demands on his time, which cannot be anticipated. He must be ready to go when sent for."|| "Therefore his private practice must be for consultations only."¶

The question is raised, who is going to reimburse the clinician for the abandonment of a rich clientèle? It might be said that there are two principal problems which face the medical schools in any radical change for the present. First, the difficulty of securing sufficient highly-trained skilled men; second, the lack of funds.

Summary of replies from thirty professors:

Questions.	Affirma- tive.	Doubt- ful.	Nega- tive.
1st. Should a professor of medicine or surgery do a family or general practice?	9	4	15
2d. Should he practice only as a consultant?	15	3	6
3d. Should he have office hours to see patients?	23	2	0
4th. Should he attend pay patients in the hospital (where he gives his clinical lectures)?	21	4	1
Non-committal or doubtful.	0	3	0

* Excerpt from answers of Dr. J. B. Murphy.

† Opinion of Dr. V. C. Vaughan.

‡ Reply of Dr. Frank Billings.

§ Answer from Dr. Llewellys F. Barker.

|| Response of Dr. Henry A. Christian.

¶ Views of Dr. W. Gilman Thompson.

Dr. Kober said that Dr. Morgan had presented all sides of the question and there seemed nothing to be said in criticism. The Society was to be congratulated on hearing the opinion of the best educators in this country ; but these men do not practice what they preach, as most of them engage in the practice of medicine. Perhaps the opinions indicate the ideals they entertain. Personally, he was of the opinion that no man should exclusively confine himself to teaching without a certain amount of contact with patients. Consultation practice certainly should not call a clinical professor out of town. In Europe the professors combine teaching with consultation practice. In America it will be long before our schools can do more than provide full-time professors in the laboratories, etc., as required by the American Association of Colleges, the regents of the State of New York, etc.

Dr. W. P. Carr said that Drs. Morgan and Kober had cited all sides of the question except that of the general practitioner. It is unfortunate when societies, schools and hospitals are managed by men not in general practice. As a rule the man who is engaged in the practical work of a profession is the best man to teach it. Medical teachers, who merely teach, get warped in their notions and can not appreciate the problems that confront the physician in contact with patients. The primary branches can be well taught by full-time teachers, but the practical branches can best be taught by practical men.

Dr. Tom A. Williams agreed with Dr. Carr's remarks and would carry them further by adding a word upon the woful defects in clinical teaching at the present time. There was much good in the old-fashioned apprentice system, or the association of student with preceptor ; we attempt to supply this sort of training now-a-days in the dispensary and the hospital ; but the hospitals harbor only a small proportion of the most sick persons. The vast majority of those ills which the practitioner most encounters are seen in the dispensary, and the dispensary is neglected and relegated to the youngest and most inexperienced men. Here is where the clinical professor should work with his students about him. Whether the clinical professor should practice or not, seems hard to decide ; one man who formerly said no, is now a professor and says yes.

Dr. Randolph wished to be recorded as endorsing Dr. Carr's remarks on the importance of training men to be doctors, a much neglected feature of medical education. If we should today make full-time teachers of men just from active practice they might for the present do very well, but later they will inevitably fall into a rut and there remain. It seemed to Dr. Randolph that the pendulum must swing back to the idea of the practitioner teacher.

Dr. S. S. Adams felt more optimistic than most of the speakers.

Why are there at present in the profession so many skilled men unless they have been well taught? Skilful practitioners do not "jes' grow," like Topsy. There can be nothing intuitive about their attainments and there can be no explanation except that fundamentally their teaching is good. He compared the medical course as offered by the schools of today with those of other days, to the great advantage of the present-day student. For himself he was ready to stand aside from his chair for any good man who could give his whole time to the work; but he was very clear in his own mind that he had learned more from the experiences of his private practice than from his hospital work. He believed that young men of today are better fitted at graduation to practice medicine than those were who left college forty years ago.

Dr. J. D. Thomas wished to say a word in opposition to the trend of the collective opinion in the letters quoted by Dr. Morgan: that clinical professors should eschew private practice. Medical teaching is primarily to teach men to treat patients in private homes, and this the mere theoretical teacher cannot do well. Much interest attaches to the relation of the clinical professor to the hospital management and the methods of teaching in the hospital; and much of interest might be said in regard to the relations of the medical staff to the hospital boards of management.

Dr. Chappell was always interested in the subject of medical teaching. He could hardly agree with Dr. Adams in his estimate of the comparative quality of the medical teaching of forty years ago and of today. The matter depends upon how men learn and their capacity to learn. The teacher must, of course, know what to teach and he should know well what he teaches. The student must possess the ability to unlearn, and this is a difficult art to acquire. The first essential of the teacher is to know the truth and to be able to teach the student to find the truth.

Dr. J. D. Morgan said that the paper was founded on the opinions of the best clinical teachers of the country and the deductions were based on these opinions. They are the men who have contributed to American medicine and to medical teaching those things that enable the student of today to know and recognize disease with a facility and accuracy unknown in other days. Dr. Kober had asked whether it is desirable for the clinical professor to be a member of the staff of more than one hospital. Dr. Morgan was of the opinion that the clinical professor should centralize his efforts in one teaching hospital. The leaders in the field of medical teaching are the men who are shortening their hours of practice and are limiting themselves to consultation work.

CASE OF HYDROPHOBIA IN MAN.*—ABSTRACT.

BY G. T. VAUGHAN, M. D.,

Washington, D. C.

W. R., colored man, age 67, laborer, was bitten by his dog about latter part of September, 1911. Two teeth penetrated the skin of the right wrist. Dr. S. T. Ashton, of Ballston, Va., cauterized the wounds, and they healed without trouble, leaving scars. At the time of the injury the dog was annoying a chicken, and, when seized by his master, bit the latter; the dog was killed, but no examination was made, and nothing more was thought of the matter. About November 17 the patient began to feel tingling pains in the right shoulder, arm and forearm. Dr. Ashton treated the patient as being rheumatic or neuralgic. Nov. 22, he was unable to swallow and had convulsions on attempting to do so. 24th, the doctor brought the patient to Emergency Hospital, Washington, in his buggy; the man had to be supported in walking into the building; there was a general appearance of collapse, with drooping figure, half-open mouth and distressed face; pulse 115 to 120, at times intermittent; axillary temperature, 98.8; patellar reflexes exaggerated. Fanning him caused stiffening of the body and sobbing inspiration. His speech was as if his lips or tongue were partially paralyzed, his enunciation imperfect and difficult, at times, to understand. His mind was clouded; he made contradictory statements. There was no dripping of saliva and no cough, but the doctor said that he had had both symptoms and had just received a dose of morphin and scopolamin. He wanted water, but said that he could not swallow; on attempting to swallow some water a look of distress appeared on his face and the water was ejected; later the same day he did swallow. At 6 P. M. he took milk and eggs and swallowed without difficulty. At 11 P. M. he was sleeping; at midnight he got out of bed and called for his clothes. 25th, he was very restless, slept some, expectorated some frothy mucus and had some dysphagia. Temperature, 99.6 to 99.8; pulse, 100 to 104; respiration, 20 to 28; he took eggs and milk, bread and soup, and sausage. He was given six hypodermatic doses of one-quarter grain of morphia. 26th, still very restless and talkative to imaginary persons; slept at intervals; coughed and expectorated a good deal; more delirious; temperature, 102.2. Died suddenly in the morning.

Necroscopy 7 hours after death by Dr. A. M. Stimson of the U. S. P. H. and M. H. S., who reported as follows: Cadaveric rigidity marked; brain slightly congested; heart seemed normal; coronary arteries, tortuous; lungs, liver and spleen normal. Each kidney contained a few small cysts; right kidney somewhat smaller

* Reported to the Medical Society, April 3, 1912.

than left. Analysis of urine : specific gravity 1.028, acid ; heavy trace of albumin ; hyalin and granular casts and epithelial cells.

The brain and oblongata were examined at the laboratory of the P. H. and M. H. S., where experiments were also made. Negri bodies, well developed but not very numerous, were found in the cerebral cortex, cornu ammoni and cerebellum. Of the rabbits that were inoculated with the emulsion of the oblongata, one died three days afterwards from acute hydrocephalus ; the others were apparently well for from ten days to two weeks, then symptoms of rabies appeared and they died. In four of these many negri bodies were found ; the other animal was too much decomposed to be examined.

Dr. Tom A. Williams agreed with Dr. Vaughan as to the importance of reporting true cases of rabies, not only on account of their interest but on account of the skepticism that persists with regard to the existence of the disease. There is such a thing as hysterical hydrophobia ; a case was recently reported in the *New York Medical Journal*. But this is not at all similar to true hydrophobia. Those who have not recognized the hysterical nature of pseudorabies and have seen such cases get well, naturally doubt the fatal character of the true disease. Some symptoms in Dr. Vaughan's report were characterized as hysteroid ; this term would be clear to many physicians, and it is better than the word hysterical, but still it is an unfortunate term. The symptoms were truly those of dementia and due to organic cortical damage.

Dr. E. L. Morgan called attention to his article on mad stones and snake stones in the treatment of lyssa and other diseases. The mad stone originated as the snake stone, and that in turn had origin among the snake worshipers of India. The mad stone was brought by the Crusaders into Europe.

Dr. Tewksbury spoke of a case of rabies he had seen at the Soldiers' Home Hospital. The patient was a man, 35 years of age, who, apparently in good health, had been bitten by a cat some two or three weeks before the appearance of symptoms. His illness began with general malaise ; then difficult deglutition appeared, and the patient died 48 hours afterward without ever regaining the power to swallow ; every effort to drink caused violent spasm. A symptom of interest in this case was the unceasing motion of the limbs.

Dr. Roy asked Dr. Vaughan if the pathological findings are constant in rabies, and whether the pathology of the disease is still described in the same terms as twenty-five years ago.

Dr. Vaughan said that the pathology of rabies as now accepted is rather new ; the negri bodies, for example, have been known only about ten years. The mortality was formerly thought to be inevitably 100 per cent. ; now there are several different methods of effecting prophylaxis, and three cases have been cured after

the appearance of definite symptoms. He had read Dr. Morgan's article on mad stones with interest. Dr. Vaughan had a mad stone in his possession which had passed through three generations of the Vaughan family. It was obtained from the alimentary tract of a deer, and experiments with it had proved that it was useless.

CASE OF HIRSCHSPRUNG'S DISEASE.*

By H. H. KERR, M. D., C. M.,

Washington, D. C.

Virginia C. ; age, 42 ; white. Family history, negative. She had had "stomach" trouble all her life ; always had to use purgatives, and the abdomen always was large. Sometimes for two or three weeks she did not have a stool and the borborygmi were so loud that they could be heard all through the house. At 13 years of age she had typhoid fever. She was of low mentality, dull and lethargic ; backward at school which she attended only five years. She lived at home until 7 years old when her mother died, and the child was removed to the St. Ann's Orphan Asylum, Washington. In 1909 she was in Providence Hospital for the same symptoms, as she was readmitted in February, 1912. She was relieved then but remained in hospital for six weeks.

About February 18, 1912, she began to have pain in abdomen following several days constipation ; the usual purgatives were given without effect. February 22 she began to vomit, and a diagnosis of intestinal obstruction was made. Readmitted to hospital February 25. She was well nourished ; skin sallow ; mucous membranes of good color ; had lost her molar teeth, the remaining teeth in bad condition ; tongue coated ; lungs and heart normal ; abdomen much and uniformly distended ; no rigidity ; peristalsis visible, passing generally from right to left ; occasional vomiting of brown odorless liquid ; urine alkaline and contained hyaline casts ; temperature, 96.6 ; pulse, 78 ; respiration, 34. A turpentine enema was given without result ; lavage of stomach ; hot turpentine stupes to abdomen. Salt solution by rectum was not returned. 26th, condition about the same except that the pulse was 90. Another enema, now double, was given, most of it retained ; was repeated without result. She was then operated on by Dr. Kerr.

A median incision was made below the umbilicus and the sigmoid colon exposed ; it was distended to the size of a man's head. A rectal tube was passed into the colon and discharged much gas. The colon walls were found thickened ; the two anterior bands had fused into one, four inches wide. This hypertro-

* Reported, with specimen, to the Medical Society, April 3, 1912.

phy extended from the splenic flexure down to the lower sigmoid. By the advice of Dr. J. F. Mitchell, a side-to-side anastomosis was made between the lower ileum and lower sigmoid ; the aseptic basting stitch method. Resection of bowel deferred. She recovered satisfactorily from the operation, and two days afterwards had two stools. This continued daily and she had a smooth convalescence.

Three weeks after the first operation Drs. Mitchell and Kerr operated again. A long incision was made in the left rectus muscle, and the sigmoid was divided between clamps and the distal end turned in under the basting stitch. The mesocolon was then incised and the large vessels ligated and divided. The great omentum was divided about two inches below the greater curvature of the stomach and ligated in sections. The parietal peritoneum along the outer border of the ascending colon was incised and the intestine raised from its bed and its vessels secured. Two curved clamps were applied in apposition, to the end of the ileum, distal to the former anastomosis, and it was divided by the cautery. The end of the ileum was turned in with a basting stitch and reinforced with two Pagenstecher sutures. She made a good recovery from the operation ; showed no signs of shock ; convalescence uninterrupted ; fourteen days after operation she was on light diet and daily having about two formed stools.

An interesting development since the operation has been that she has mentally improved. Her sister-in-law, on visiting her, was struck by the change.

Dr. A. B. Hooe expressed his pleasure at seeing the specimen. He had seen one case of Hirschsprung's disease in Mayo's clinic ; this was in a boy of 14 years, with impaired mentality ; the colon was much distended. There has been some discussion as to the necessity of removing the dilated gut when it is not otherwise diseased ; since the condition seems to be due to a congenital atony, it seemed to Dr. Hooe that removal of the gut would be the only effective treatment. The operation is not so formidable as it may appear ; in a clean operation the dangers of sepsis should be slight. Dr. Kerr exhibited good judgment in doing the operation in two stages ; the prognosis would be distinctly improved thereby. Dr. Hooe congratulated Dr. Kerr on his success in this case and upon the presentation of the first specimen of the kind to the Society.

Dr. W. P. Carr was much interested in the case. He endorsed Dr. Kerr's mode of operating because most of the cases which have been resected at once have proved fatal. It is much better to make a simple anastomosis first ; and it is not always necessary to do the resection afterwards. These cases ought to be diagnosed in infancy or childhood ; it is much easier then, and early operation might prevent mental deterioration.

Dr. Vaughan was glad to see the specimen and to congratulate Dr. Kerr on the successful outcome of the case. Good judgment was shown in doing the operation in two stages. Dr. Vaughan had the following experience last year: He was called to see a child six years old, with habitual constipation, much enlarged abdomen, mental condition not ascertained. On the day before his examination the boy had eaten a large quantity of bananas. At the examination he was in a state of tetany. A diagnosis of the obstruction was made. An operation disclosed the sigmoid flexure enormously distended and in volvulus, having almost reached the stage of gangrene. The diameter of the dilated portion was four inches; the rest of the colon was enlarged, but the walls were thick and the dilatation was not acute. The volvulus made a resection immediately necessary; the operation was well born, but an hour afterward the boy suddenly died. Dr. Vaughan called attention to his recent paper on Lane's operation for megacolon, and the relation of megacolon to mental impairment.

Dr. Frankland called attention to the temperature at time of operation, viz: 96.6; he had no doubt that the temperature had been running on a subnormal plane before the operation, as this is one of the symptoms of coprostasis. There is also a certain amount of mental hebetude in normal individuals who allow their colons to become loaded with feces. It is not remarkable that a colon filled with putrefactive material should so poison the patient that poor mental development would result. The stools in such a person would be found alkaline and offensive; toxic substances would constantly be absorbed and cause a chronic toxemia.

Dr. Kerr said that the question as to the propriety of resection was not difficult to decide in his case, as the bowel was undoubtedly diseased. The condition is not often found in adults, as an early fatal result is the rule; the mortality in cases treated by medical means is 86 per cent., that following surgical treatment 43 per cent. In the specimen presented there was no atrophy of the bowel, but distinct hypertrophy, the walls looking like stomach wall. Resection was done because it eventually became necessary, even after the anastomosis had been done.

ITS PLACE OF BUSINESS.—“In the absence of any accurate information the imagination of our pupils sometimes takes a curiously amusing turn,” says an instructor in a Philadelphia institution.

“The boy who defined a mountain range as a ‘large-sized cook-stove,’ was recently eclipsed by the answer returned by a lad from Altoona.

“What is the office of the gastric juice?” was the question put to this boy.

“His written response, no doubt struck off in the hurry of the examination, was: ‘The stomach.’”—*Fenimore Martin*.

In Memoriam.

JOHN HERR MUSSER, M. D.

The members of the Medical Society of the District of Columbia wish to place on record an expression of their sorrow upon learning of the death of their distinguished honorary member, Dr. John Herr Musser, who died suddenly from heart disease at his home in Philadelphia, on Wednesday, April 3, 1912, at the age of 55.

He was born at Strasburg, Pa., in 1856, obtained his medical degree from the University of Pennsylvania in 1877, and had practiced in Philadelphia ever since. Dr. Musser was a Professor of Clinical Medicine in the University of Pennsylvania, and was connected with the Philadelphia, University and Presbyterian Hospitals. He was a member of the Philadelphia County Medical Society, the Medical Society of the State of Pennsylvania, the American Medical Association (of which he was President in 1904), the College of Physicians of Philadelphia, and a number of other societies, local and national. As a teacher, clinician and author he had achieved great distinction. He possessed a kind and genial manner which endeared him to all. He came from a long line of practitioners, not only his father, but his grandfather and great grandfather having been physicians. Therefore, be it

*Resolved,** That this tribute be entered in full on the Society records, and

Resolved, That we send to his bereaved family an expression of our sympathy.

(Signed) THOMAS N. McLAUGHLIN,
C. W. RICHARDSON,
GEO. N. ACKER,

Committee.

JOSIAH ROBSON BROMWELL, M. D.

On May 25, 1912, the Medical Society of the District of Columbia lost one of its oldest members, Dr. Josiah Robson Bromwell, who died at his residence in this city after a long and painful illness which he bore with unusual and exemplary fortitude.

Dr. Bromwell was born in Frederick County, Maryland, September 10, 1843. Before taking up the study of medicine, while he was yet nineteen years of age, he enlisted in the Confederate army and served throughout the war, being severely wounded at the battle of Gettysburg.

* Preamble and resolutions adopted by the Medical Society, April 10, 1912.

At the close of the war he returned to his native State and entered upon his medical studies at the University of Maryland, from which institution he received the degree of Doctor of Medicine in 1871.

His early years of practice were spent in Virginia, and in 1882 he removed to this city where he remained in the active practice of his profession until two years ago when he was compelled by the infirmities of illness to relinquish his active duties, but did so with the utmost reluctance.

Dr. Bromwell had been a member of this Society since October 30, 1883, having obtained membership in this body within one year after taking up his residence in this city.

Until compelled by the demands of an onerous practice, and in later years by the limitations of ill health, to relinquish an active part in the affairs of the Society, Dr. Bromwell discharged faithfully all the duties of membership and served his turn in the official capacities to which he was chosen.

During the past several years he had been compelled to give up attendance upon the meetings of the Society and other organizations in which he held membership, but with an untiring devotion to the interest of his patients, he responded to their importunities and continued his professional visits during many months when his reward of an earnest, arduous life should have been rest and retirement from those activities which practice necessitated, but which entailed a sacrifice of personal comfort, and a sequel of physical distress of which only his professional intimates knew.

Your committee begs leave to submit the following resolutions:

*Resolved,** That in the death of Dr. J. R. Bromwell this Society has lost one of its honored members, and the profession of medicine a respected and beloved colleague, whose loss will not only be felt by them, but by those who in the years gone by have profited by his tender ministrations and his unfailing devotion.

Resolved, That the Society extends to his bereaved family its expression of sympathy and regret, and that the Secretary be instructed to transmit a copy of this record and resolutions, which shall become a part of the minutes of the Society.

(Signed) M. F. CUTHBERT,
JOSEPH S. WALL,
J. TABER JOHNSON, *Committee.*

* Adopted by the Society, May 29, 1912.

THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

WHEREAS,* The medical profession of the District of Columbia has heretofore affiliated with the American Medical Association under the name of the Medical Association of the District of Columbia ; and

WHEREAS, The Medical Association of the District of Columbia and the Medical Society of the District of Columbia, for the purposes of harmony and unification, did by unanimous vote of both bodies in joint session, on the tenth day of July, 1911, amalgamate and adopt for the new body the name and title of The Medical Society of the District of Columbia ; and

WHEREAS, The Medical Society of the District of Columbia in its Constitution under the heading of "Status" declares : " This Society shall be a continuation and amalgamation of the Medical Society of the District of Columbia (founded September 26, 1817, and chartered by Acts of Congress of February 16, 1819, and July 7, 1838) and the Medical Association of the District of Columbia (organized January 11, 1833)," and that

" This Society shall be a representative medical organization of the District of Columbia, constituted and maintained in conformity with the general plan of the American Medical Association ; it hereby declares its allegiance to the American Medical Association and agrees with other State and territorial medical associations to the formation and the perpetuation of the House of Delegates of the American Medical Association." Therefore

Resolved : That the American Medical Association be, and is hereby, requested to recognize The Medical Society of the District of Columbia as the legitimate successor of the Medical Association of the District of Columbia, and as such entitled to membership and representation in the American Medical Association with all the rights and privileges of its other constituent bodies.

PROCEEDINGS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

Wednesday, April 3, 1912.—The President, Dr. J. B. Nichols, presided ; about 95 members present.

The death of Dr. John H. Musser, of Philadelphia, an honorary member of the Society, was announced, and Drs. Acker, T. N. McLaughlin and C. W. Richardson were appointed a committee to report appropriate resolutions.

* Adopted by the Medical Society April 17, 1912.

The Treasurer reported for March, receipts, \$111.00; disbursements, \$185.00. Report accepted.

Dr. G. Wythe Cook, from the Executive Committee, reported as follows:

1. Request for the Society to participate in the movement to regulate the height of street-car steps. The committee recommended that the Society take no action in the matter.

2. Request from the President of the New Hampshire State Medical Society for an expression of opinion by this Society on certain aspects of reciprocity in granting licenses to practice medicine.

3. Request from the Retail Druggists' Association to publish in the ANNALS articles on pharmaceuticals. The committee recommended that the request be not granted.

4. Request from Dr. W. A. Ruble, of Loma Linda, Cal., to retain his membership in the Society. Recommended that his name be retained on the list.

5. Letter from Georgetown Citizens' Association relative to the maintenance of Columbia Hospital. The committee recommended that the Society take no action.

The Society approved the recommendations of the committee.

Dr. Vaughan reported a case of Rabies. Discussed by Drs. Williams, E. L. Morgan, Tewksbury, Roy and Vaughan. See page 168.

Dr. H. H. Kerr reported a case of Hirschsprung's Disease, with resection of colon, and recovery, and showed the specimen. Discussed by Drs. A. B. Hooe, Carr, Vaughan, Frankland and Kerr. See page 170.

Wednesday, April 10.—The President, Dr. Nichols, presided; about 75 members present.

A report from the Committee on Resolutions on the death of Dr. J. H. Musser was read and adopted. See p. 173.

Dr. Williams, for the Committee on Public Instruction, reported a successful public meeting at which Dr. Prince Morrow had made the address; he reported also the formation of a Society for Education in Sex Hygiene, composed of some members of his committee and of some laymen. He read a letter from an officer of the Boy Scouts of the District of Columbia pointing out the importance of the instruction of the boys in sex hygiene, and also the importance of physical examination of boys entering that organization, and asking the coöperation of the Public Instruction Committee in securing medical volunteers to do this work.

The letter, together with such recommendations as the Committee on Public Instruction wished to make thereon, was referred to the Executive Committee for consideration and recommendation.

Dr. S. S. Adams, chairman of the Milk Committee, reported

plans for early organization of the committee and beginning of the work assigned it.

Dr. Wellington read the paper for the evening. Title : Meckel's Diverticulum, with report of four cases. Dr. D. S. Lamb presented specimens from the Army Medical Museum illustrating Meckel's and other diverticula of the intestine. Discussed by Drs. Vaughan, E. P. Magruder, Carr, Snyder, Jack, Borden and Wellington.

Wednesday, April 17.—The President, Dr. Nichols, presided ; about 75 members present.

Dr. G. Wythe Cook, for the Executive Committee, reported : (a) adversely on the physical examination of Boy Scouts as a proper function of the Society as an organization ; (b) instruction of Boy Scouts upon sex hygiene referred to the Committee on Public Instruction.

(c) The committee recommended the adoption of resolutions expressing the allegiance of the Society to the American Medical Association and asking formal recognition by that Association. The report of the Committee was adopted. See page 175.

Dr. James Dudley Morgan read the essay for the evening. Title : The Relation of the Clinical Professor to the Hospitals, the Medical School, the Community and the Profession. Discussed by Drs. Kober, W. P. Carr, Williams, Randolph, S. S. Adams, J. D. Thomas, Chappell and J. D. Morgan. See page 163.

Wednesday, April 24.—The President, Dr. Nichols, presided ; about 45 members present.

The receipt of the following communications was announced : (a) an extract from the *New Orleans Picayune* reporting the death of Dr. Samuel Fry, a former member of the Society ; (b) the program for the 114th annual meeting of the Medical and Chirurgical Faculty of Maryland ; and (c) a copy of the opinion of the court in the case of Health Department *vs.* Masterson, transmitted by H. Ralph Burton, Esq., counsel for the Society. The last paper was read and ordered filed.

Dr. Masterson formally thanked the Society for its action in retaining counsel for the defense of his case in the action recently brought against him by the Health Department ; he appreciated the spirit of the resolution which provided for defraying the expense involved in his defense, but he desired to state that all counsel fees had been paid and that he wished to decline any financial aid from the Society.

The program for the evening being in charge of the Medical History Club, Dr. Randolph read the essay, entitled : Medicine in Lay Literature. Discussed by Drs. Williams, Frank Baker and Randolph. See page 135.

Stated Meeting, May 1.—The President, Dr. Nichols, presided; about 65 members present.

The Treasurer reported for April, receipts, \$48.00; disbursements, \$159.63.

Dr. Balloch, from the Committee of Censors, reported favorably on the following applications for membership. The applicants were elected.

For active membership:

Daniel P. Bush, George Washington University, 1905.

Harry S. Lewis, George Washington University, 1910.

James Albert Potter, Georgetown University, 1907.

For associate membership:

Ernest Luther Bullard, Rockville, Md.

W. Allen Griffith, Berwyn, Md.

Walter Van Swearingen, Washington, D. C.

Sheldon G. Evans, U. S. N., Washington, D. C.

The following amendments to the Constitution and By-Laws were adopted:

(a) Article VII, Section 2. After the words: "Shall consist of the President, Treasurer," insert the words "Recording Secretary, Corresponding Secretary."

(b) Amend Article I of the By-Laws as follows: Number the present article "Section 1," and add the following section: "2. The time devoted to business shall not exceed thirty minutes, excepting at stated and special meetings and at meetings devoted to the election of officers."

(c) Amend Article II of the By-Laws: Number the present article "Section 1," and add the following section: "2. No matter involving an expression of the opinion of the Society in public matters shall be considered or voted on except after due notice of the subject and time of its consideration shall have been sent to all the active members."

Amend Section 4, Article V, of the Constitution as follows: After the word "Society," in line 7, insert the following: "The Corresponding Secretary shall send to each member of the Society a list of all pending applications for membership at least one month before the stated meeting at which such applications are to be acted upon by the Society."

Dr. A. B. Hooe called attention to the omission of any action upon the offer made by Dr. Masterson at the last meeting to relieve the Society of any obligation to defray the counsel fees incurred in the defense of a recent court action in which Dr. Masterson was involved, and moved that this offer of Dr. Masterson be accepted. The motion carried.

The following resolution, proposed by Dr. G. Wythe Cook, was laid on the table:

"Resolved, That the action of the Medical Society of the District of Columbia on March 13, 1912, in authorizing the employ-

ment of counsel to defend one of its members in an action brought against him by the Health Officer of the District of Columbia, shall not be considered as establishing a precedent, nor construed as a disposition on the part of this Society to array itself against the Health Department of the District of Columbia."

Applications for membership were received from the following physicians and referred to the Committee of Censors:

For active membership:

Clifton E. Young, George Washington University, 1910.

John Wm. Warner, Bellevue Hosp. Med. College, N. Y., 1909.

For associate membership:

Ralph Michael LeCompte, Washington, D. C.

Dr. W. F. Hemler proposed the following resolutions:

"*Resolved*: 1. That flies are carriers of infection; that persons who touch or handle them are likely to contract disease; that contests which involve the handling and collecting of flies by children should be discouraged.

"2. That the only effective way to exterminate the fly is to watch carefully for possible breeding places, to keep tightly covered, so that flies may not gain access to deposit their eggs which hatch in manure pits, garbage receptacles, or other places where maggots can be found, as maggots mean developing flies; and to thoroughly clean such places daily or at least twice a week, thereby removing the eggs before they have time to hatch, and, where possible, also use chemical preventatives.

"3. That the committee on public instruction be directed to use proper means to effectively educate the public in accordance with the spirit of this resolution."

Dr. J. C. McGuire read the paper for the evening, entitled: The contagiousness of diseases that affect the skin. Discussed by Drs. Simpson, Masterson, Chappell, E. L. Morgan, Lemon, I. S. Stone, S. B. Muncaster, G. W. Cook and McGuire. See page 154.

A MATTER OF EDUCATION.—A newly made magistrate was gravely absorbed in a formidable document. Raising his keen eyes, he said to the man who stood patiently waiting the award of justice:

"Officer, what is this man charged with?"

"Bigotry, your worship. He's got three wives."

The new J. P. rested his elbows on the desk and placed his finger tips together. "Officer," he said, somewhat sternly, "what is the use of all this education, all these evening schools, all the technical classes, and what not? Please remember, in any future like case, that a man who has married three wives has not committed bigotry, but trigonometry. Proceed."—*St. Paul Dispatch*.

WASHINGTON MEDICAL ANNALS.

Journal of the Medical Society of the District of Columbia.

Published Bimonthly by the Society, at No. 2114 Eighteenth Street, N. W., Washington, D. C. Subscription price, including postage, \$1.00 per year, in advance. Single copies, 20 cents.. Advertising rates given on application.

COMMITTEE ON PUBLICATION.

D. S. LAMB, A. M., M. D., *Chairman and Editor*, 2114 Eighteenth St., N. W.

Associate Editors.

B. G. POOL, M. D.,	945 Rhode Island Avenue, N. W.
H. H. DONNALLY, M. D., A. M., B. S.,	1612 I Street, N. W.
TRUMAN ABBE, A. B., M. D.,	Stoneleigh Court.
W. W. WILKINSON, M. D.,	The Rochambeau.

Editorial.

History of the Medical Society of the District of Columbia — This book should be in the hands of every member of the Medical Society. The price is only \$1.00, with 25 cents added if delivered in this city or sent by mail. Address Dr. C. W. Franzoni, 605 I Street, N. W. The books are in the custody of Dr. D. S. Lamb, at the Army Medical Museum.

THE OTHER MEDICAL SOCIETIES OF THE DISTRICT OF COLUMBIA.

THE MEDICAL HISTORY CLUB OF WASHINGTON.—Officers: C. W. Richardson, President; B. M. Randolph, Vice President; H. W. Lawson, Secretary.

THE HIPPOCRATES SOCIETY meets on the second Thursday in each month from October to May. Membership limited to 25. Officers: T. S. D. Grasty, President; W. G. Young, Vice President; L. M. Hynson, Secretary-Treasurer.

SOCIETY OF OPHTHALMOLOGISTS AND OTOLOGISTS of Washington.—R. S. Lamb, President; J. J. Richardson, Vice President; A. B. Bennett, Jr., Secretary-Treasurer. Meets on the third Friday in each month from October to May, inclusive.

CLINICAL SOCIETY OF WASHINGTON.—Composed of 25 active members besides retired members. Officers: C. M. Hammett, President; T. A. Groover, Vice President; W. E. Clark, Secretary-Treasurer; L. A. Johnson and J. D. Thomas, Censors.

Oct. 14. V. B. Jackson, essayist; at T. A. Groover's. Discussion led by D. W. Prentiss.

Nov. 11. A. B. Hooe, essayist; at Sothoron Key's. Discussion led by L. H. Reichelderfer.

Dec. 9. F. L. Biscoe, essayist; at J. D. Thomas'. Discussion led by Monte Griffith.

THE WOMEN'S MEDICAL SOCIETY of the District of Columbia meets on the second Tuesday of each month from October to May, inclusive. The officers are Mary Parsons, President; H. W. Bordeau-Sisco, Vice President; Mary Holmes, Recording Secretary and Treasurer, and Martha M. B. Lyon, Corresponding Secretary.

GALEN SOCIETY of the District of Columbia. H. J. Bryson, President; R. L. Spire, Secretary-Treasurer.

Oct. 21, meeting at R. L. Spire's; election of officers and miscellaneous business.

CLINICO-PATHOLOGICAL SOCIETY.—Active membership limited to 25. Inactive membership: those who have withdrawn from active membership for 15 years. A limited honorary membership of distinguished medical men. Meets on first and third Tuesdays from October to May, inclusive. Officers: W. G. Morgan, President; Sothoron Key and E. E. Morse, Vice Presidents; B. M. Randolph, Secretary and Treasurer. Program for 1912:

DATE.	PLACE OF MEETING.	ESSAYIST.	TO OPEN DISCUSSION.
Oct. 15.	Dr. Parker, 1518 Conn. Ave...	Election of Officers.	
Nov. 5.	" Miller, 1730 K Street	Dr. Johnson.....	Dr. Randolph
Nov. 19.	" Hagner, 1824 19th St.....	" Parker.....	" Dunlop
Dec. 3.	" Key, 1716 H St.....	" Kerr.....	" Miller
Dec. 17.	" Kerr, 1742 N St.....	" Morse.....	" Parker

GEORGETOWN CLINICAL SOCIETY.—Twenty active members; limited to graduates of the Medical Department of Georgetown University. Meets at University Club, second Tuesday in the month. R. A. Hamilton, President; J. J. Mundell, Vice President; J. R. Verbrycke, Jr., Secretary-Treasurer.

THERAPEUTIC SOCIETY of the District of Columbia.—Meets at the G. W. School of Pharmacy, 808 I st. n. w. on the first Saturday in each month. L. H. Taylor, President; S. R. Karpeles, Secretary.

Program for 1912:

October 5.—Diabetes mellitus; Etiology and Pathology, by H. M. Kaufman; Symptoms and Diagnosis, by E. H. Egbert; Treatment, by W. M. Barton; Discussion, W. M. Sprigg.

November 2.—Alcoholism; Acute Alcoholism, by L. S. Savage; Chronic, by Dr. Latimer; Prophylaxis and Treatment, by M. F. Thompson; Discussion, D. P. Hickling.

December 7.—Smoker at University Club; President's address.

THE SECRETARIES of the other Medical Societies of this District are reminded that the ANNALS will publish the schedules of their meetings.

NEW AND NONOFFICIAL REMEDIES. Price, cloth, \$0.50; paper, \$0.25; pp., 298. Chicago: AMERICAN MEDICAL ASSOCIATION, 1912.—This book contains descriptions of and a state-

ment of the actions and uses of all articles which have been examined and accepted by the Council on Pharmacy and Chemistry prior to Jan. 1, 1912. The work of the Council during its seven years of existence and the reports of the Propaganda Department of THE JOURNAL A. M. A. have convinced the physician that in the prescribing of proprietary remedies he must be careful in his selection of those which he directs for his patients. Nowhere else can the physician or the pharmacist turn for reliable, unbiased information concerning the new remedies. This book enables the physician to make such selection and the careful pharmacist to know the character of the remedies he dispenses.

THE NATIONAL SOCIETY OF ANESTHETISTS was organized June 5 at Atlantic City, N. J. President, J. T. Gwathney, of New York; Vice-Presidents, C. K. Teter, of Cleveland, Ohio, F. H. McMeechan, of Cincinnati, and Yandel Henderson, of New Haven, Conn.; Secretary, W. C. Woolsey, 88 Lafayette Ave., Brooklyn, N. Y.; Treasurer, H. A. Sanders, of Brooklyn. Dues \$3.00 a year. Dr. Woolsey will furnish any desired information.

THE ARMY MEDICAL MUSEUM has received a certificate of honor from the Committee on Awards for Scientific Exhibit for the excellence of its exhibit at the last meeting of the A. M. A. at Atlantic City.

MEMBERS OF THE SOCIETY who favor the Owen bill, and it is to be supposed that all the members do favor it, would do well to say as much to the members of the Senate and House of Representatives, whom they personally know.

THE FOLLOWING MEDICAL MEN AND WOMEN from Washington, and probably others whose names we did not get, attended the meeting of the Amer. Med. Assn. at Atlantic City, June 4 to 7: Drs. J. F. Anderson, N. P. Barnes, G. S. Barnhart, I. Bermann, J. R. Biggs, Rupert Blue, P. S. Bordeau-Sisco, J. W. Bovée, E. W. Burch, W. K. Butler, G. C. Clark, G. Wythe Cook, C. F. Craig (U. S. A.), C. R. Dufour, J. P. Fillebrown, E. C. Folkmar, C. S. Ford, W. T. Gill, Jos. Goldberger, T. A. Groover, E. J. Gunning, F. R. Hagner, P. S. Halloran (U. S. A.), R. A. Hamilton, H. H. Hazen, G. B. Heinecke, Reid Hunt, T. W. Jackson (U. S. A.), H. L. E. Johnson, J. R. Kean (U. S. A.), L. F. Kebler, J. W. Kerr, G. M. Kober, D. S. Lamb, I. H. Lamb, H. W. Lawson, R. E. Ledbetter (U. S. N.), D. O. Leech, M. D. Magee, W. J. Manning, J. F. Mitchell, W. G. Morgan, H. J. Nichols (U. S. A.), J. B. Nichols, T. A. Poole, W. P. Reeves, Chas. Richard (U. S. A.), J. D. Rogers, P. S. Roy, W. C. Rucker, F. F. Russell (U. S. A.), Wm. Salant, J. M. Schereschewsky, Jesse Shoup, J. O. Skinner, A. A. Snyder, W. M. Sprigg, A. H. Staples, G. M. Sternberg (U. S. A.), E. R. Stitt (U. S. N.), L. H. Taylor, H. D. Thomason (U. S. A.),

G. H. Torney (U. S. A.), A. P. Upshur (U. S. A.), W. A. Wells, Gustavus Werber, M. I. Wilbert, C. S. Wilbur, Oscar Wilkinson, T. A. Williams, W. C. Woodward, Frederick Yates.

THE FOLLOWING MEMBERS OF THE SOCIETY have lately died : Dr. J. R. Bromwell, May 25. A very brief sketch of him will be found in the History of the Society on page 316 ; see also page 173 this number. Dr. M. B. Strickler died June 17. His sketch appears on page 381 of the History, and a half-tone portrait on engraving, No. 65, facing page 256. Dr. H. B. Deale died June 19. See the History, page 333, and half-tone 39, opposite page 152.

DR. JOHN S. NEATE, Bacteriologist of the Army Medical Museum, died April 28. He was not a member of this Society, but his position and work gave him the opportunity to be of much service to members, many of whom will recall with gratitude the occasions in which he was helpful to them. Dr. Neate was born in England and was educated there. Coming to this country he enlisted in the Army and served both in the cavalry and Hospital Corps. Finally, in 1899, he was detailed for duty with the "Reed" Yellow Fever Commission, and in 1901 to duty at the Army Medical Museum, where he remained until his death. He died of carcinoma of the liver.

ABSTRACTED FROM TABLE published in the *Jour. A. M. A.*, May 25, 1912, showing results of examination for registration in 1911 of graduates of the medical schools of the District of Columbia :

	Examined.	Passed.	Failed.	Per cent. failed.
Geo. Wash. Univ.	35	33	2	5.7
Georgetown Univ.	19	16	3	15.8
Howard Univ. . .	46	37	9	19.6

Of the above the following graduated in 1911 :

Geo. Wash. Univ.	15	14	1	6.7
Georgetown Univ.	8	6	2	25
Howard Univ. . .	6	13	3	18.7

The following graduated 1907 to 1911, five years :

Geo. Wash. Univ.	32	30	2	6.2
Georgetown Univ.	18	15	3	16.7
Howard Univ. . .	45	37	8	17.8

Those examined in the District of Columbia :

Geo. Wash. Univ.	13	11	2	15.4
Georgetown Univ.	4	4	0	0
Howard Univ. . .	5	3	2	40

Those examined outside the District :

Geo. Wash. Univ.	19	19	0	0
Georgetown Univ.	14	11	3	21.4
Howard Univ. . .	40	34	6	15

SOME STATISTICS of physicians in the District of Columbia and the States with the smaller populations. From the report of the Secretary of the A. M. A. to the House of Delegates; published in the *Jour. A. M. A.*, for June 8, page 1783.

	Physicians in the State.	Number of Members in State asso- ciation.	Members of A. M. A.
Arizona	247	128	98
Delaware	246	105	50
District Columbia	1,350	580	282
Florida	974	329	175
Idaho	420	103	75
Maine	1,176	606	280
Montana	512	229	123
Nevada	144	69	48
New Hampshire .	704	536	221
New Mexico . .	430	164	109
North Dakota .	594	388	288
Oregon	1,041	426	252
Rhode Island . .	751	377	234
South Carolina .	1,275	688	210
South Dakota .	651	272	168
Utah	427	228	158
Vermont	679	389	155
Wyoming	235	118	52

In the following States more than 50 per cent. of the physicians are members of the State associations: Arizona, Maine, New Hampshire, North Dakota, Rhode Island, South Carolina, Utah, Vermont and Wyoming. The marked difference in the District of Columbia between the number of physicians and the members of the District Medical Society is explained by the fact that many physicians who are registered are in the service of the U. S. Government are not practicing, and can not therefore be members of the Society.

New Hampshire has the distinction of having the largest proportion of physicians who are also members of the State association.

In the following States less than 50 per cent. of the members of the State association are also members of the A. M. A.: Delaware, District of Columbia, Maine, New Hampshire, South Carolina, Vermont and Wyoming.

AUGUSTUS CHARLES BERNAYS. A memoir. By THEKLA BERNAYS (his sister). Published by the C. V. Mosby Co., St. Louis, Mo., 1912. With bibliography, 309 pages. Price, \$2.00.

This memoir is the story of the ancestry, childhood, manhood and death of Dr. Bernays; the days at Heidelberg and other

European medical institutions ; his success as a teacher and surgeon ; his temperament, traits and habits. The story breathes throughout an intense sisterly affection. The undersigned knew Dr. Bernays in the long ago. The book is very interesting reading.—D. S. L.

RECENT PUBLICATIONS OF PHYSICIANS OF THE DISTRICT OF COLUMBIA.

J. F. Anderson, Some recent contributions of the U. S. P. H. and M. H. S. to preventive medicine ; *Jour. A. M. A.*, June 8, page 1748. Also, J. F. Anderson and J. Goldberger, Experimental proof of identity of Brill's disease and typhus fever ; *N. Y. Med. Jour.*, May 11 ; abstracted in *Jour. A. M. A.*, May 25, page 1643.

W. M. Barton, Concepts and realities ; See *Jour. A. M. A.*, May 18, page 1494. See also same journal, June 8, page 1757, Exaggeration in writing of medical advances.

H. G. Beyer, Closing remarks to graduating class of Naval Medical School, March 25, 1912. *Military Surgeon*, May.

F. B. Bishop, Constipation, its causes, consequences and treatment ; *Va. Med. Semi-Mo.*, June 7, pp. 111 and 118.

C. F. Craig, Morphology of parasitic and cultural amebæ ; *Jour. Med. Research*, April.

C. R. Dufour, Rheumatic diseases of eye and throat ; *Va. Med. Semi-Mo.*, May 10, page 67.

John Dunlop, Quinia and urea hydrochloride as a local anesthetic ; same journal, June 7, page 117. Also, Fracture of lower end of tibia ; *ibid*, page 118.

L. Eliot, Case of ischio-rectal abscess ; *Proctologist*, June, page 66.

H. A. Fowler, Profuse unilateral renal hemorrhage ; nephrectomy ; Pathological report ; *Amer. Jour. Urology*, May.

S. I. Franz, The present status of psychology in medical education and practice ; *Jour. A. M. A.*, March 30, page 909 ; abstracted in *Vermont Med. Mo.*, May 15, page 128. Also, Handbook of mental examination methods ; reviewed in *Jour. A. M. A.*, June 8, page 1814.

F. H. Garrison, Review of H. A. Kelly's "Cyclopedia of Amer. Med. Biog." ; *Science*, May 17, page 727.

Joseph Goldberger and J. F. Anderson, Studies on the virus of typhus ; reprint No. 32, from Public Health Reports U. S. P. H. and M. H. S., 1912.

J. R. Kean, Tribute to Minotaur ; *Maryland Med. Jour.*, May.

A. F. A. King, Version in transverse presentations resulting from thigh pressure produced by posture ; *Internat. Med. Jour.*, May.

J. J. Kinyoun and L. V. Dieten, Bacteriologic study of milk supply of Washington, D. C. ; *Amer. Jour. Public Health*, April.

L. L. Lumsden, Coöperation as factor in prevention of typhoid ;

Southern Med. Jour., May. Also, Report of an outbreak of typhoid fever at Lincoln, Nebr., in 1911. Also, L. L. Lumsden and A. M. Stimson; examination of excreta for typhoid bacilli; reprint No. 80, from Public Health Reports, U. S. P. H. and M. H. S., 1912.

T. B. McClintic, Investigations of and tick eradication in Rocky Mountain spotted fever; reprint from Public Health Reports, No. 79, 1912.

A. J. McLaughlin, Sewage polluted water supplies in relation to infant mortality; reprint from Public Health Reports, No. 77, 1912. Also, Eradication of typhoid; *Boston Med. and Surg. Jour.*, May 23; abstracted in *Jour. A. M. A.*, June 15, page 1880.

W. J. Manning, A method of continuous sterilization of instruments, together with aseptic hypodermic medication; *Jour. A. M. A.*, June 22, page 1939.

J. D. Morgan, Relation of clinical professor to hospital, community, medical school and profession; *Med. Record*, N. Y., June 8.

W. G. Morgan, Duodenal alimentation; *Amer. Jour. Med. Sci.*, May; abstracted in *Jour. A. M. A.*, June 8, page 1815.

M. G. Motter and M. I. Wilbert, Digest of comments on the Pharmacopœia of the United States, for 1910. Bull. 84, U. S. P. H. and M. H. S., Hygienic Laboratory, 1912.

W. C. Rucker, Sanitary advice for summer tourists; also, Sanitary advice for keepers of summer resorts; reprint from Public Health Reports, No. 81, 1912.

Wm. Salant and J. B. Rieger, The elimination of caffeine; Bull. 157, Bureau Chemistry, Dept. Agricult., 1912.

E. H. Schorer and M. J. Rosenau, Tests of efficiency of pasteurization of milk under practical conditions; *Jour. Med. Research*, April; abstracted in *Jour. A. M. A.*, May 11, page 1476.

W. F. M. Sowers, Exophthalmic goiter; *Va. Med. Semi-Mo.*, April 26.

I. S. Stone, On the use of iodine in conservative surgery of the uterine appendages; *Va. Med. Semi-Mo.*, June 7, page 105.

G. B. Tribble, Syphilis, diagnosis and treatment; *Va. Med. Semi-Mo.*, May 10, page 55.

G. T. Vaughan, Hydrophobia in man; same journal, April 26, page 29.

W. A. White, The study of mind in medical education; *Jour. A. M. A.*, May 11, page 1417. Also, Fundamentals of Freudian psychology; *N. Y. Med. Jour.*, May 11.

H. W. Wiley, The services of the sciences to rational medicine; *N. Y. State Jour. Med.*, May, page 222; also in *Albany Med. Annals*, May. Also, Danger to the public from praise of caffeine; *Jour. A. M. A.*, May 11, page 1463.

T. A. Williams, Case of crossed hemidysergia and tremor, with asynergia of binocular movements; *Lancet-Clinic*, April 13.

Also, Remarks on diagnosis of poliomyelitis with misleading symptoms; *Ky. Med. Jour.*, May 1, page 402. Also, Care of inebriates at home; *Lancet-Clinic*, May 11.

W. H. Wilmer, Visual standard for pilots; Report to A. M. A., *Jour. A. M. A.*, June 8, page 1809.

W. C. Woodward, Report of Council of Health and Public Instruction; *Jour. A. M. A.*, June 8, page 1800.

PERSONAL NOTES.

Dr. S. S. Adams was reëlected Secretary of the American Pediatric Society at the annual meeting, May 29 to 31, at Hot Springs, Va.

Drs. J. F. Anderson, of the P. H. and M. H. S., and A. D. Melvin, of the Bureau of Animal Industry, Dept. Agriculture, are members of the Commission on Milk Standards, appointed by the N. Y. Milk Committee. The report of the Commission was published as Bull. No. 78, U. S. P. H. and M. H. S., May 10, 1912.

Dr. J. W. Bovée was reëlected Treasurer of the Amer. Gynec. Society at the annual meeting in Baltimore, May 28 to 30.

Dr. G. F. Clark, Passed Asst. Surg., U. S. Navy, has been ordered to the Naval Medical School, this city.

Dr. Taliaferro Clark, U. S. P. H. and M. H. S., has been detailed to proceed to Minnesota to coöperate with the State officials in investigating trachoma and other communicable diseases among the Indians. Dr. Clark was at one time a member of this Society.

Dr. G. Wythe Cook, the delegate from this Society to the A. M. A., took part in the business of the House of Delegates at Atlantic City meeting. See *Jour. A. M. A.*, June 8, page 799.

Dr. J. B. Deaver, of Philadelphia, was the speaker and guest at the meeting of the Med. and Surg. Society, this city, May 7.

Dr. H. D. Fry was elected Fourth Vice President of the A. M. A. at the recent meeting.

Dr. Ales Hrdlicka, of the U. S. National Museum, has gone to Siberia and will proceed thence to China, making collections for the Museum.

Mr. Percy Hughes, formerly of the public schools of this city, attended and took part in the discussions at the meeting of the Amer. Academy of Medicine, at Lehigh University, South Bethlehem, Pa., April 3 and 4.

Dr. Reid Hunt is a member of the Reference Committee on Medical Education of the A. M. A.

Miss Margaret Johnson, daughter of Dr. Joseph Taber Johnson, was married in May to Mr. Earl Wheeler. A reception to the couple was given by Dr. Johnson at the Country Club, June 29.

Dr. J. R. Kean, Col., Med. Corps, U. S. Army, is a member of the Reference Committee of the A. M. A. on Legislation and Political Action.

Dr. G. M. Kober was reëlected Secretary of the Association of Amer. Physicians at the annual meeting at Atlantic City, May 14 and 15.

Dr. W. Gerry Morgan gave a reception, May 7, at Rauscher's, to Dr. Robert T. Morris, of N. Y. City.

Dr. J. L. Norris has been appointed Deputy Health Officer in place of Dr. Sawtelle, resigned.

Dr. T. L. Rhoads, U. S. Army, has been selected by President Taft as his Military Aid, in place of Major Butt, deceased.

Dr. P. S. Roy was elected President and Dr. J. D. Rogers Corresponding Secretary of the Medical Society of Northern Virginia and the District of Columbia, at the meeting, May 15, at Leesburg, Va.

Dr. H. F. Sawtelle has resigned his place in the Health Office and will devote himself to private practice.

Dr. T. R. Shands was elected President of the Amer. Orthopedic Society, at Atlantic City, June 1.

WASHINGTON MEDICAL ANNALS

THE VALUE OF SOPHOL IN THE PREVENTION OF OPHTHALMIA NEONATORUM.*

BY J. F. MORAN, M. D.,

Washington, D. C.

Pharmaceutical chemistry has produced during the last several decades many synthetic drugs, and notably among these are the organic silver compounds. Some of them have fallen into well-merited oblivion while others have stood the therapeutic test and have a wide field of application in medicine and surgery.

For a number of years obstetricians have been endeavoring to find a substitute for nitrate of silver for the prevention of ophthalmia neonatorum, that possessed its bactericidal potency, yet was free from its irritating and painful effects. Several silver compounds have been used with varying success, and one of the most recent to meet with favor is sophol.

The Council of Pharmacy and Chemistry of the American Medical Association (*Jour. A. M. A.*, 1910, 54, No. 13, p. 1115), has admitted the compound into the list of New and Non-Official Remedies.

Sophol is a compound of silver and formaldehyde-nucleinic acid, the silver being present in organic (masked) form. It is a yellowish powder having a metallic taste and contains not less than 20 per cent. of metallic silver. It is readily soluble in water, the aqueous solution having a faint alkaline reaction; the solution does not give a precipitate on the addition of dilute solution of sodium hydroxide or of sodium chloride; it is insoluble in ether and alcohol.

The solution should be made with cold water, as heat will dissociate the loosely combined formaldehyde. The sophol should be sprinkled on the surface of the water in a shallow dish and allowed to dissolve without agitation, and kept in dark bottles or tubes, hermetically sealed. The solution should be freshly prepared every two weeks to insure the best results, although a

* Read before the Medical Society May 15, 1912.

six months' old solution has been found in the Münchener Frauenklinik not to irritate any more than a fresh one. Dr. Lawson, through whose recommendation the remedy was introduced into the maternity service of Freedmen's Hospital, found from experiment that a six months old solution irritated the eyes in every case and had to be replaced. This is in accord with the experience at Columbia Hospital, where a several months' old solution was discarded for a freshly prepared one, with marked improvement in the results. The drug can be obtained in vials, in tablet or powdered form also, thereby making it very convenient for general use. A five per cent. solution is ample as a prophylactic against ophthalmia neonatorum, but ten per cent. can be used without producing marked irritation or pain.

In April, 1909, the President of the Washington Obstetrical and Gynecological Society appointed Dr. Sprigg and the writer a committee to investigate the status of the preventive treatment of ophthalmia neonatorum. The report was submitted to the Society Nov. 5, 1909.

In the review of the literature the committee was particularly impressed with the excellent results obtained with sophol by v. Herff and others, and was anxious to give it a trial. Through the courtesy of the visiting obstetricians of Columbia Hospital, Dr. Lawson, of the visiting staff of Freedmen's Hospital, Dr. C. A. Brooks, its resident physician, and the hearty coöperation of the internes, the remedy has been employed since August 1, 1909, in the maternities of these institutions.

The remedy was used in three series—August 1 to October 31, 1909; November 1, 1909, to January 31, 1910, and February 1, 1910, to July 3, 1911, in the Columbia Hospital, and to May 1 1912, in the Freedmen's Hospital. In the first series 153 infants' eyes were treated, 93 in the Columbia Hospital and 60 in the Freedmen's Hospital. Of those treated at Columbia Hospital there were 13 primary reactions, lasting from a few hours to several days, all yielding to boric acid irrigations. There was no primary infection, although one mother had been under treatment in the hospital for more than a week for a severe case of vulvo-vaginitis. The infant's eyes were wide open immediately after birth and had a dull glazed appearance with clouded cornea. Prompt instillation was made and no trouble followed.

There were eight late infections (non-gonorrheal) occurring from the fifth to the fourteenth day after birth. Six yielded to the sophol and boric acid applications in from a few hours to eight days. One case in which the *lanceolatus* was found left the hospital on the eleventh day of the treatment much improved; and, another, in which the microscopical examination was negative, left also on the eleventh day of the treatment improved.

Dr. Lawson reports that 60 infants received the five per cent. sophol solution at birth in the Freedmen's Hospital and the re-

sults were very satisfactory. In but one case was there more than a slight inflammatory reaction observed. One baby developed a purulent conjunctivitis, which was slight and cleared up within five days, during which time the sophol solution was instilled three times daily. The mother had a marked vaginal discharge at the time of delivery.

In the second series, 130 more infants, 80 in Columbia Hospital and 50 in Freedmen's Hospital, were given the sophol prophylaxis, and in neither was there any primary infection.

In the Columbia Hospital series there were 15 cases of primary irritation and 5 cases of secondary infection. The percentage of primary irritation was greater than in the first series. The interne, Dr. Maclay, suspected that the solution was at fault, and replaced it with a fresh one with improved results.

Dr. Lawson informed me that in 50 cases at the Freedmen's Hospital in which sophol was employed, in not a single instance did purulent conjunctivitis develop. He also said that an infant admitted to the hospital suffering with gonorrheal ophthalmia, as demonstrated by microscopical examination, was successfully treated with sophol.

In the third series 454 cases were treated in Columbia Hospital and 384 in Freedmen's Hospital without a single primary infection in either institution.

In the Columbia Hospital series there were 41 primary reactions and 32 late infections (4 gonorrheal). In the Freedmen's Hospital there were 5 late infections (1 gonorrheal).

In June, 1911, four cases of gonorrheal ophthalmia developed in the Columbia Hospital, and, on recommendation of the interne, the sophol was discontinued. The writer subsequently investigated these cases and found that two of them appeared on the seventh day, one on the twelfth day and one on the fourteenth day, consequently were late infections and cannot be charged to lack of efficiency of the prophylactic. For several months other measures were used in place of sophol and the sore eyes increased in frequency. The result of the above examination of the records was brought to the attention of the chiefs of the maternity service and the sophol solution was restored, and marked reduction in morbidity followed.

Prompted by the favorable experience with the use of sophol in these two hospitals the Health Department of this city has been dispensing the prophylactic in hermetically-sealed amber-colored vials to the midwives since August 28, 1911. The midwives were previously given a practical demonstration how to use the solution in the eyes of the new-born. This was done fearing that some of the most ignorant would not follow the printed directions accompanying the package.

Up to April 30, 1912, there were 597 births returned by midwives and 420 packages of sophol were used. During that period

11 cases of gonorrheal ophthalmia were reported by the visiting nurses, and in only two instances had sophol been employed. The discharge appeared in one on the fifth day, a late infection, showing that the eyes were contaminated subsequent to the instillation of the prophylactic. In the other the visiting nurse saw the case on the third day after birth, in which the solution had not been used. She instilled the sophol, but it did not prevent the ophthalmia, which appeared on the following day, remaining for two days and disappearing. Dr. J. J. Kinyoun, the bacteriologist of the Health Department, who furnished the above data, says that these are the only cases of gonorrheal ophthalmia that have been reported, and he is certain that if there had been more the Health Department would have been informed, as the visiting nurses are very diligent about reporting cases. Unfortunately there is no law requiring compulsory prophylaxis against ophthalmia neonatorum, but there is a provision compelling the reporting to the Health Department of these cases, and several midwives who neglected to do so were haled into court and fined. This has had a salutary effect upon some of the midwives, yet, the difference between the number of births reported and the packages issued shows that the prophylactic is not generally used by them.

The combined figures of the Columbia Hospital, Freedmen's Hospital and the Health Department show that 1711 infants received the sophol prophylactic treatment, and in not a single case was there primary infection. The majority of the late infections yielded to boracic acid irrigations and sophol instillations, while in several gonorrheal ophthalmia cases it was necessary to resort to silver nitrate solution to effect a cure.

Ophthalmia neonatorum is designated primary and secondary, depending upon its relation to the time of the birth. Primary ophthalmia is the result usually of neglect to use the prophylactic, or faulty technic, while secondary ophthalmia is generally the result of inoculation of the eyes with the infected lochia, or contamination from other sources, and is due to ignorance or relaxed vigilance on the part of the attendant or mother.

To prevent secondary infections the waiting mothers should be frequently told of the danger of the lochia; the infants should not be *tubbed* until after the cord has fallen off; the puerperal cases repeatedly warned not to soil their hands with discharges from wounds and not to rub the infant's eyes. These are simple rules, but it is necessary to repeat them again and again in order to obtain satisfactory results.

Our experience is in accord with that of von Herff and others who have used sophol, as will be seen from the following table recently received from von Herff and results gathered from other sources.

GONORRHEAL OPHTHALMIA IN BASLE CANTON, 1896 TO APRIL, 1912.
BIRTHS IN THE CITY COMPARED WITH THOSE IN THE MATERNITY HOSPITAL.

Where born.	Year.	Number of infants.	Number of cases.	Primary infection.	General, per cent.	Legitimate, per cent.	Illegitimate infants, per cent.	Genuine primary infection, pr. ct.	Infection during birth, per cent.	Prophylaxis.
City.....	1896 to 1909	29,163*	191	132	0.65	0.54	2.59	0.45	?	None.
Maternity	1896 to 1901.	5,661	15	6	0.27	0.25	0.37	0.16	0.0	Silver nitrate 2 per cent. Protargol.
Maternity	1902 to 1904 (v. Herff.)	3,009	2	0	0.06	0.08	0.0	0.0	0.0	...
Maternity	1-1 to 5-31, 1905. (v. Herff.)	500	0	0	0.0	0.0	0.0	0.0	0.0	...
Maternity	1-6, 1905, to 1-3, 1912.	9,700†	2	(1) 0	0.02	0.023 (under 8,700 infants).	0.08 (under 8,700 infants).	0.0	0.1	Sophol, 5 per cent.
Maternity	1-3, 1902, to 1-3, 1912.	13,200	4	(1) 0 One case of infection during birth.	0.03	0.024 (below 12,209 infants).	0.05 (under 12,209 infants).	0.0	0.007	Protargol,† Argyrol, Sophol.

* Except infants that died within the first five days.

† Except stillbirths and infants dying in the first hours after birth.

‡ One case, January 25, 1905, infection occurred during birth while replacing the cord in a known gonorrhoeal case.

THE STATISTICS OF SOPHOL IN THE PREVENTION OF OPHTHALMIA NEONATORUM.

Name.	Year.	Number of infants.	Primary infection. Per cent.	Late infection Per cent.	Primary irritation. Per cent.
Gallatia	1908	280	0	2	5.7
Feulner, Karl	1909	1,436	1	1	0.2
Katzenellenbogen	1909	470	0	0	1.82
Hofstatter	1910	2,000	2	5	9.
Grünbaum	1910	300	0	1 (?)	
Gratkowski	1910	1,595	0	1	8-10
v. Herff	1912	9,700	(2)	1	
Columbia Hospital	Aug. 1, 1909, to July 5, 1912.	623	0	4 (?)	10.
Freedmen's Hospital	Aug. 1, 1909, to Apr. 30, 1912.	668	0	1 (?)	
Health Dept. (Midwives) ..	Aug. 28, 1911, to May 1, 1912.	420	0	(?)	(?)
		17,482			

The foregoing figures show the incalculable benefit that has accrued to mankind in the prevention of ophthalmia neonatorum from the use of the 2 per cent. solution of silver nitrate, since Crede published the result of his experience in 1881, with this remedy. The morbidity was rapidly reduced in the maternities and clinics from over 10 per cent. to less than 1, per cent., but as yet it has not been possible to prevent it entirely. Unfortunately, the 2 per cent. solution not infrequently produces a marked conjunctivitis, requiring much nursing, and exposing others to the danger of infection from the transference of the dis-

charge. For this reason the remedy has met with little favor outside of hospitals. To overcome this handicap many obstetricians have reduced the strength of the solution to 1 per cent. and others still lower, but the reduction has been obtained at the expense of lessened protection.

Quite naturally then followed the introduction of a number of substitutes to replace nitrate of silver. The claims made for them are that they are equally efficacious, that they penetrate more deeply, possess higher bactericidal power and do not stain the conjunctiva or cornea; besides, they can be instilled by the inexperienced without risk, and, lastly, they cause little, if any, pain. Clinical investigation has confirmed some of these claims and at the same time negated others.

A review of the literature shows that in this country silver nitrate, argyrol and protargol are the remedies generally employed as prophylactics; while abroad, in addition to these, argonin, collargol, albargin, itrol, sophol, largin, silver acetate, etc., have been employed and recommended. The fact that we are able from our own experience and that of other experimenters to quote over 20,000 cases prophylactically treated with several of the silver compounds, with only four primary infections, is certainly convincing proof of their value. A further evidence of their worth is supported by the fact that a number of observers have reported infants delivered of mothers suffering with gonorrheal vaginitis, demonstrated clinically and microscopically, and remained perfectly free from infection after the instillation of the silver compound, and did not show the slightest inflammatory reaction.

While the percentage of primary infections has been greatly reduced the number of late infections remains approximately the same, and the reason of this is obvious, since the Crede method cannot prevent late infection.

In addition to the five cases of late ophthalmia neonatorum occurring in Columbia and Freedmen's Hospitals there were 50 cases of mild conjunctivitis, the majority of which were microscopically negative, and cleared up under boric acid irrigations and sophol instillations in from one to several days.

Incorporated in the above-mentioned committee report are the tabulated replies received to a circular letter sent to a number of the leading maternities and obstetricians in the United States and Europe. The following questions were submitted:

1. What is the routine treatment in your hospital for the prevention of ophthalmia neonatorum?
2. Do you recommend the treatment to be carried out by midwives?
3. Do you recommend the remedy to be dispensed by the Health Department?

Forty-three replies were received. All employ prophylactic

measures but differ in the choice and strength of the solution, technic, regulation of midwives and the advisability of the Health Department dispensing the drugs.

Twenty-six use silver nitrate, varying from one-half of one per cent. to 2 per cent. Fifteen use argyrol, from 5 to 50 per cent. Five employ sophol, 5 per cent. One prefers silver acetate, 1 per cent. ; another hydrarg. bichlor., 1-2,000. Protargol is used by four, but supplementary to silver nitrate in three and hydrarg. bichlor. in one.

The questions relating to midwives and the dispensing of the prophylactic by the Health Department were only submitted to the hospitals in the United States, and there were thirty-two replies. Twenty-five favored the use of prophylactics by midwives, but several advise that the midwives be taught the proper method of application, while others recommend that only substitutes for silver nitrate be employed by them. It is observed that all those who oppose the treatment by midwives use nitrate of silver, and one of the objectors states that the drug is too powerful and dangerous to be entrusted to the uninitiated. Twenty recommend that the prophylactic be dispensed by the Health Department, while twelve object, one regarding it as another socialistic measure.

It is worthy of note that only 60 per cent. of the institutions use silver nitrate exclusively. These figures were received from widely separated sources and may reasonably be taken as a fair index of the trend towards the employment of substitutes for silver nitrate in the preventive treatment against ophthalmia neonatorum.

The silver preparations generally are unstable and decompose more or less rapidly on exposure to the light and air. The solutions are also inconstant and many cases are of record where these preparations were increased to several times their original strength by evaporation, and where their application caused marked inflammatory reaction and even the loss of normal eyes. These drawbacks are particularly true of silver nitrate, and as its instillation requires *absolute precision to prevent serious injury it should never be entrusted to the midwife.*

It is estimated that more than 50 per cent. of the births are cared for by midwives and that at least 30 per cent. of the blindness is due to ophthalmia neonatorum. It has been clearly proven that this disease can, in most instances, be prevented, and when it does occur prompt and intelligent treatment will effect a cure with almost absolute certainty. Yet, in spite of this knowledge, the percentage of blindness from this source is high and is a severe commentary on the authorities and the members of the profession who neglect a duty that is of such vital concern to the State and humanity. Undoubtedly the principal reasons why the prophylaxis against ophthalmia has thus far failed of univer-

sal adoption are, first, carelessness on the part of those who know better, and, second, want of knowledge of its value on the part of the midwives; or, if they have had the misfortune to have a conjunctivitis follow the instillation of the silver nitrate solution, they are not likely to voluntarily repeat the procedure for fear of being censured by the laity.

The fact that it has been shown that we now have at our command several substitutes for silver nitrate in the prevention of ophthalmia neonatorum that are more stable, comparatively painless and unirritating, and can be used with perfect safety by anyone, emphasizes the necessity of the enactment of stringent legislation requiring compulsory prophylaxis in order that this scourge may, if possible, be stamped out.

REFERENCES.

1. Moran and Sprigg, Report of Committee on the Prevention of Ophthalmia Neonatorum, *American Journal of Obstetrics*, Feb., 1910.
2. v. Herff, Kann man die Zahl der Erkrankungen an Ophthalmia-bleonorhoea Gonorrhoea verringern? *Gynaekologischen Rundschau*, 1907, Nr. 19.
Sophol, *Zentralbl. f. Gyn.*, Leipzig, 1908, Nr. 42.
Zur Behandlung der Augengonorrhoe, 1908, Nr. 46.
Zur Verhütung der Gonorrhoeischen Ophthalmo-blenorhoe mit Sophol, *München Medizin. Wochschr.*, 1906, Nr. 20.
3. Gallatia, Sophol als Vorbeugungsmittel bei Ophthalmo-blenorhoe Neonatorum, *Wiener Medizin. Wochschr.*, Nr. 6, 1908.
4. Feulner, Ueber die praeventive Behandlung der Augeneiterung der Neugeborenen mit Berücksichtigung der neuen Mittel, besonders des Sophols, Inaugural Dissertation, München, Nr. 19.
5. Hofstatter, Ueber Ophthalmoblenorrhoea Neonatorum, *Gynaekologische Rundschau*, 1911, Nr. 11.
6. Katzenellenbogen. Ophthalmoblenorrhoea Neonatorum, Inaugural Dissertation, Freiburg, 1909.
7. Grünbaum, Zur Prophylaxe der Blenorhoea Neonatorum, *Berliner Klinische Wochschr.*, 1910, n. s., 5, 369.
8. Gratkowski, Inaugural Dissertation, Breslau, 1910.

Dr. Barton congratulated the essayist on the presentation of a paper of such great and general interest. He felt sorry that he could not endorse the idea of the profession uniting in the recommendation of any organic silver preparation for the prophylaxis of ophthalmia neonatorum. He took this position for the reason that so many organic silver preparations have been put on the market, none of which acts as silver nitrate does, viz.: precipitation of albumin, precipitation of soluble chlorides, etc. Sophol is a combination of silver with nucleinic acid and formaldehyde; it should not therefore differ much from the host of its congeners. The distinctive effect of silver nitrate is derived from its power to precipitate proteids, etc. Moreover, the statistics do not conclusively show the greater value of sophol over protargol. He would be favorable to the enactment of laws enforcing the prophylaxis against ophthalmia neonatorum, but

could not unite in the endorsement of any one drug for this purpose.

Dr. S. B. Muncaster said that sophol has the advantage of exerting the effects of silver and of formaldehyde at once; it has the further advantage of not causing great irritation and pain.

Dr. Dufour agreed with the essayist in the main but not entirely. The origin of the prophylactic treatment of ophthalmia neonatorum was with Crèdè who stamped out an epidemic of this disease in an institution, by the use of silver nitrate in 2 per cent. solution. Such a solution is difficult to apply and two persons are usually required for its effective application. He had never seen a really serious reaction from the use of two per cent. silver nitrate solution. The remedy should be used by the physician; the lids should be everted and the solution brushed over the surface. He had used sophol, but had not depended on it alone; he himself applies silver nitrate solution; sophol in 25 per cent. solution is for the use of the nurse.

Dr. Woodward said that the standard drug for the prophylaxis of ophthalmia neonatorum is silver nitrate; he believed no one would question that proposition; but the objections to the use of solutions of this drug by midwives have been pointed out. Moreover, if the drug is used timidly it may be inefficient, while if used too freely it may be injurious. In addition to these objections, it is unsuitable for distribution by health authorities because the solution is unstable. Such reasons as these make the discovery of a suitable substitute very desirable. It may as well be admitted at once that the organic silver compounds are not as potent as silver nitrate; but the percentage of silver in such compounds is much larger and the effect of it is more prolonged as it is not precipitated by the body fluids. Another advantage of the organic silver compounds is that a large quantity is generally used and thus to the chemical effect of the drug is added the mechanical effect of flushing the palpebral spaces. Also, in case of secondary infection, the physician or midwife is in a better position if it is sought to blame the attendant for the eye condition on the ground of the prophylactic instillation. For general use, therefore, the organic silver compounds are best; the preparation used need not be sophol, but for the present that drug seems best to meet the indications.

Dr. Williams inquired whether the pharmacologic action of silver is by virtue of its affinity for chlorine, thus having its effect within the cell by depriving organic cells of chlorine which is necessary for cellular life? Also, does not silver nitrate exert a certain nitrifying effect by producing in cells the xanthoproteic reaction? If these propositions have in them any truth, would they not explain the differences in the results derived from silver nitrate and the organic silver compounds?

Dr. I. S. Stone said that the too vigorous use of solutions of

silver nitrate certainly can do harm. After an outbreak of eye inflammations at Columbia Hospital, the ophthalmologist who investigated the situation blamed it on the use of silver nitrate. As to the use of disinfectants, the tendency of surgeons is to lay aside those which coagulate albumin; so silver nitrate may suffer from the same disadvantages, and these considerations lead to the use of substitutes which do not so much damage. When 17,000 patients have been treated with a drug with such a very small morbidity, as in the statistics given by Dr. Moran, the good effect of that drug would seem to be demonstrated.

Dr. Roy said that the practical question is whether albuminates of silver kill gonococci; the chemistry of the question is not of so much importance.

Dr. Dufour asked whether in the cases cited by Dr. Moran there had been any bacteriologic investigations to determine whether infection was primarily present or not.

Dr. Carr said that it may safely be granted that in 20,000 births, the birth canal in some of the cases will be infected. This series of 20,000 births treated with sophol with such a low morbidity of ophthalmia is pretty good evidence of the value of the drug. There should not be much difficulty in applying solutions to the eyes of newly born babies. But the object of the paper was to find a safe remedy for the general use of midwives; the endorsement of a drug does not deter one from trying and adopting another and a better one when it is found.

Dr. Lemon said that many physicians find it difficult to put solutions with efficacy into the eyes of new born infants. He had never found any other agent so good as silver nitrate, and he believes that it will never be productive of harm if it is neutralized by salt solution soon after its application.

Dr. Moran said that facts are stubborn things, and figures show that the organic silver compounds do prevent ophthalmia. Experience demonstrates the value of sophol; and when with a drug the reduction of morbidity is 200 per cent. surely that drug is to be endorsed. Certainly silver nitrate is not safe in the hands of midwives, and equally surely sophol is safe. Many cases in the series had been investigated bacteriologically and infection demonstrated. To apply sophol to the infant's eye, it is not necessary forcibly to open the eye; the solution can be poured into the inner canthus, and when the infant blinks the eye is flooded.

THE WAY IT COMES AND GOES.—The funny man on the editorial staff of the weekly *Bulletin* of the Chicago Department of Health puts it thusly: "Consumption comes with a hack and a cough, and goes with a coffin and a hack."—*The Lancet-Clinic*.

OILY INJECTIONS OF SALVARSAN.*

By H. H. HAZEN, M. D.,

Washington, D. C.

In presenting this short paper, I am fully cognizant of the fact that intravenous injections of salvarsan, are much more favored by the men, who have had the greatest experience with the drug, than are the intra-muscular injections. If McDonough's observations are confirmed, the intra-muscular injection threatens to become as much out of date as the subcutaneous injection already is.

Inasmuch as McDonough's paper has not as yet been published, although it was read before the VII International Congress of Dermatology and Syphilis recently held at Rome, it seems wise to give a resumé of it. McDonough has shown that when a patient with latent syphilis and a negative Wassermann, is given a provocative intravenous injection of salvarsan, the Wassermann will become positive in from 17 to 48 hours, to become negative again in the course of a few days. So long as an intravenous injection of "606" will cause the Wassermann to become positive, so long is the patient uncured. He compares the use of the drug to the use of gonococcus vaccine in chronic gonorrhoeal infections. The use of this vaccine will often set up an acute urethritis in uncured cases. Its use must be kept up until this urethritis no longer results. Just so must the intravenous injections of salvarsan be kept up until a positive Wassermann no longer results. McDonough gives three weekly injections, and then as many more injections as are necessary at intervals of about two weeks. Non-syphilitic cases never show a positive Wassermann after an injection of salvarsan. About six intravenous injections are necessary in order to cure a secondary case, and about nine injections to cure a tertiary case. This work is the first criterion that we have had as to the absolute cure of syphilis. While it still lacks confirmation, yet it is so important that it should be widely known and tried.

In the sixteen months that I have been using the oily injections they have been found to be superior to the other intra-muscular ones in two ways; first, ease of usage, and second, in the freedom from pain. Various oils are used by various observers; I have been using a modified Lambkin's cream. My formula is as follows: Gun camphor, half dram; monomethylcatechol, half dram; paraffin oil, enough to make one ounce. Just enough of this oil is used to make a fine, smooth emulsion; about five cc. are usually required. The technique of preparation and injection is simple. All that is needed in addition to the oil and the "606" is a suitable syringe and a small mortar and pestle. A five cc. syringe may be

* Read before the Medical Society, May 29, 1912.

used, but one in which the end of the plunger is cut off square, and is not round, as in the latter case, some of the emulsion may work up between the plunger and barrel of the syringe and jam. The portal of exit of the syringe should be large, and a needle of from seventeen to twenty gauge used. Inasmuch as the syringe must be absolutely dry, it should be first lubricated with castor oil and then sterilized by dry heat, or it may be boiled and then cleaned with alcohol and ether; the former method is much the better. The very slightest quantity of moisture may cause a hopeless gumming. The mortar and pestle may be boiled and allowed to dry. The tube of salvarsan is broken into the mortar and the oil added drop by drop, constantly grinding until a perfect emulsion is secured. It is then drawn into the syringe and the injection made in the usual way. Following the suggestion of Dr. Fowler, about one-half cc. of air is injected along the needle track so as to prevent the oil from escaping into the subcutaneous tissues. The injections may be made into either the gluteal or lumbar muscles.

To date I have had 42 cases with 53 injections, all injections being given in the buttocks. In general, it may be said that a small injection of say 0.3 gram gives even less trouble than a full injection, so it is wise to give two half doses at one sitting rather than a full dose. My results have been about the same as with the other types of intra-muscular injections; most of the secondary skin manifestations, and all the mucous patches, condylomata, and throat ulcerations cleared up speedily, while some of the tertiary did very well and some were uninfluenced.

The most striking fact has been the freedom from severe pain. One patient who had two injections, required morphine after each, but not one of the other cases required a sedative or opiate of any kind, and not one but was willing to take another injection. Two-thirds of the cases had induration of the buttock, that lasted from six days to two months, but all but two cases had cleared up by the end of two weeks. Only three cases lost any time from work, the others kept on steadily with their various occupations. One-third of the cases never had the slightest sign of any local trouble.

There were the following complications: pulmonary embolism once, phlebitis once, though it is not certain that this was due to the "606," two cases had small superficial abscesses that speedily healed, and one case had a deep abscess that soon healed. Three cases came back about three months after injection, with large and tender indurations in the buttocks; one of these speedily healed under calomel injections, the other two were lost sight of. One case that had an injection upon one side only had both sides break down about three months later. Not a single case that took treatment regularly following the salvarsan injection has had any trouble at the site of injection. Practically all the cases that

have had trouble have been either the early cases where the technique was not fully developed, or cases that neglected after treatment, in spite of advice, to follow with mercury.

Unfortunately it has only been in the last few cases that satisfactory Wassermanns were done, and as yet the results are not constant enough for one to draw deductions.

In spite of the strides that the intravenous method has made, there is still a field of usefulness for the intra-muscular injection; in *tabes*, for instance, the intravenous injection should never be employed. Inasmuch as it is usually admitted that the intra-muscular injection has the more lasting effect, it might be well to start in a course of treatment with that type of injection, and to follow later with intravenous injections, according to the method of McDonough.

Dr. Hagner said that such a large field had been covered by the paper that he would limit his remarks to a few points. He himself had had no experience with the use of salvarsan with oil; he had been interested in Dr. Hazen's successful use of it in this way. A noteworthy element in the discussion of the merits of salvarsan is the French antagonism to the German school and the intense hostility to this discovery of a German scientist. There can be no doubt of the value and importance of the "provocative injections," so named by O'Donough. Although Dr. Hagner was not familiar with O'Donough's work, he had observed the re-awakening of the Wassermann reaction after the administration of salvarsan. He was ready to acknowledge that in some cases mercury must be used as an adjuvant in the treatment, but he did not hesitate to affirm that some of his cases have been positively cured by "606" alone. The rather high mortality attending the intravenous method of administration is not to be wondered at when the literature is scanned with attention directed to the character of the patients whose cases are reported.

He had now a series of about 500 intravenous injections, with no death; there had been untoward symptoms in only two cases: (1) a physician had a very sore arm following the injection; and (2) a patient reacted with decided toxic symptoms; both recovered.

Dr. H. J. Nichols, Captain, U. S. A., was much interested in the paper, and especially in the remarks upon intra-muscular injections. Interest at present is keen in Ehrlich's 914 compound, neosalvarsan, a sample of which was recently received at the Army Medical School; this is certainly a great advance over the older drug. Neosalvarsan is a powder, easily soluble in normal salt solution, making a neutral solution without manipulation. This feature of the drug will probably bring the intra-muscular method of administration into vogue again and will make the operation much easier. He believes with Dr. Hagner that the

radical cure of syphilis will depend upon the intravenous injections, and thus the treatment of syphilis has become distinctly a surgical procedure. Neosalvarsan is a gray powder, with a lower specific gravity than salvarsan, the dose being 0.90 gram; chemically it is a substitution product of salvarsan, the radical of methyl sodiosulphonate being attached to one corner of the benzol ring.

Dr. C. A. Simpson said that the method used by Dr. Hazen is about the same as Politzer's, but Politzer has given it up for the intravenous method. When modifications will eliminate the pain of intra-muscular injections this method will return to favor, but not until then. He has now on hand a case with an unfortunately severe reaction after an oily injection. Some patients will require intra-muscular injections, because they cannot be so circumstanced as to make intravenous administration safe.

Dr. Hazen found himself in rather an embarrassing position with regard to salvarsan; he had advocated the intra-muscular injections, but since his visit to Rome, where he heard the results of the foreign workers, he had been forced to revise his opinion. He now believes that for symptomatic treatment the intra-muscular injections are best; but for a radical cure, the intravenous method must be used. He had no hesitation in saying that the pain of intra-muscular injections will be modified by the addition of camphor and guaiacol to the suspending oil; but even so, an occasional case will react with severe pain.

A CONTRIBUTION TO THE STUDY OF MENTAL DETERIORATION.*

By D. PERCY HICKLING, M. D.,

Washington, D. C.

Probably the most important question to-day to the Psychiatrist as well as the Sociologist is the question of "Mental Deterioration." It is well understood that mental defectives are practically divided into two classes, the congenital defective and the acquired defective. It is the latter form that I will call your attention to in this paper.

This condition is properly classified under the Dementias and is sometimes spoken of as mental enfeeblement or mental weakness, always however, keeping in mind that it is an acquired defect and that it is slow and usually progressive in its character and depends upon actual changes in the structure of the cerebral neuron for its cause. Mental enfeeblement exists in many of the fundamental psychoses, dementia precox, general paresis,

* Read before the Medical Society, May 15, 1912.

the terminal dementias as well as in senile conditions. It is also found in the alcoholics and criminal classes, although in the latter class the congenital form is by far the most frequent; these facts have long been appreciated by those who have been associated with this class of our people.

The mentality of an individual develops from birth up to a certain degree; depending upon the environment and the so-called ability or mental capacity of the individual, it may remain stationary, or, owing to various causes, begin to deteriorate; this is really a dissolution of the cerebral nervous system and takes place in the reverse order of the mental evolution and follows the so-called law of regression.⁵ The earliest functions attained are the least complex, the least voluntary, the most instinctive, the most organized, and are the last to be affected, while the last attained functions of the brain to be evolved being the least organized and most unstable, complex and voluntary, are the least instinctive and therefore the first to be affected. According to this law the memory for recent events is affected first, while that for remote events remains until the last, and ideas are forgotten before actions, while the emotional reactions are excessive, and irritability and sentimentality are unduly exaggerated, and the judgment is defective. Suspicious and persecutory ideas are prevalent. This condition while long recognized is just beginning to be fully appreciated. Formerly in a given case the judgment of the mental condition of the individual was ascertained by the examiner by a few memory and judgment tests, based on the personal and acquired knowledge of the patient's previous mental acquirements; this crude method not only led to confusion, but naturally failed in recognizing the degenerative changes until they were so far advanced and of so long duration as to be of little use except for medico-legal purposes.

The importance of ascertaining the normal mentality of an individual or a class of individuals and the recognition of the beginning of the mental deterioration cannot, in my judgment, be overestimated, it being a self-evident fact that without a method of ascertaining the normal mentality, there can be no method of ascertaining the degree of departure or deterioration. Modern psychology with its hosts of trained workers, has for years, through a series of tests upon normal and abnormal persons, produced a useful and fairly accurate system of tests whereby the normal mentality of children from 3 to 16 years of age and the adult can be definitely ascertained.

In 1905 Binet and Simons⁴ published a series of thirty tests with the idea of classifying defective children. In 1908 they published a second system of tests in the form of a graded series for the determination of native ability and general intelligence, without regard to previous training, and by this method the mental age of the child could be pretty accurately ascertained, and

comparing this result with the calendar age of the child, it was an easy matter to determine its degree of mental development or lack of development. This series of tests has been further revised by Henry H. Goddard,³ of Vineland, N. J., so that by five carefully arranged and graded tests for each year, between the ages of 3 and 16, and the adult, the present mental ability of the person may be accurately ascertained and graded accordingly. In addition to these, Dr. Guy C. Fernald,² of Concord, Mass., has arranged a series of tests which are especially adapted to the defective delinquent. All these tests are arranged to eliminate any special training or education which the person might have received, so that they might show, as far as possible, the true intellectual capacity, having special reference to judgment, good sense, initiative, adaptability and memory. In addition to these selected tests the work of Whipple, of Cornell, and Franz,¹ of The Government Hospital for the Insane, have placed at our disposal additional tests which are of great advantage and value in the special study of an individual case.

With these diagnostic methods at our disposal we are in a position to ascertain, not only the normal mentality of an individual, but also the degree of deviation, without regard to educational environment; it being safe to assume that the normal response required is the minimum or pretty near the minimum for any individual, we should also be able to detect the degree of defect or deterioration in the person examined; these methods are being used successfully among school children, the insane and criminal classes, but as far as I know, they have not been applied to the senile or to the chronic alcoholic. During the past two months I have been using these methods at The Washington Asylum Hospital, especially in these two classes of cases, believing that they would disclose mental defects which up to that time were not fully appreciated. While the number of cases examined has not been as yet sufficient to justify any positive conclusion, yet several interesting conditions have been apparent to me while engaged in this work. In the senile many cases examined were taken from the wards of the Hospital; they were men over 60 years of age and apparently of sound mind, yet under the Goddard graded series of tests, they disclosed conditions which were quite surprising. With but one exception they all showed the condition of second childishness ranging from 6 to 9 years of age.

With this condition of affairs established it becomes a very important question how they should be rated as far as their testamentary capacity and responsibility are concerned; in other words, whether they should be considered as of sound mind. It is very questionable whether they should be rated according to their apparent mentality or according to their diseased condition. We all know that a Melancholic, a Paranoiac, or even a well de-

veloped Dementia Precox, not only knows the difference between right and wrong, but has sufficient memory to comply with the legal tests, which enable him to make a will or sign a deed or contract, and yet when his actual mental condition is known, the law very properly intervenes, not only for his own protection, but for the protection of those who have claims upon him, instead of allowing him, as is now done, to perform many acts which have to be carefully considered by courts and juries often after serious wrongs have been committed. In regard to the chronic alcoholics at The Washington Asylum, we have found little difficulty in stopping the use of alcohol, and in taking away the appetite for the stimulant, as well as restoring them to what is apparently their normal mentality. I must confess that I have been somewhat disappointed in having patients in this condition return to their excessive drinking, and I, at first, was inclined to blame it upon their environment; but after applying the tests to these cases I found that they showed a mental deterioration to an alarming degree. All those whom I examined failed to comply with the mental tests applicable to a 9-year-old child.

With this fact in mind it is easy to understand why the man or woman is unable to return to the environment which he should occupy, and to which he has been able to adjust himself, and it is easy to understand why he again resorts to drink or even suicide. It would seem logical, in cases of chronic alcoholism where a decided degree of mental deterioration could be accurately demonstrated, that some provision by law should be made for their proper care and treatment. Especially is this true when we know that all the mental symptoms due to the excessive and continued use of alcohol have a decided tendency to recover when the cause is removed and proper medical and hygienic treatment is given.

REFERENCES.

¹ Hand Book of Mental Examination Methods. S. I. Franz.

² G. G. Fernald—American Journal of Insanity, April, 1912.

³ The Binet-Simon Scale, 1911. H. H. Goddard.

⁴ Manual of Mental and Physical Tests. G. M. Whipple.

⁵ Mind and Its Disorders. W. H. B. Stoddart.

Dr. Tom A. Williams expressed disappointment at the absence of many of the members of the Neurological Society. Dr. Hickling's effort had been to find a psychometric method for the examination of the aged; this attempt has been made all over the world. He was sorry to say that Dr. Hickling had given a somewhat false impression as to the use of the methods outlined in the paper. Goddard and Binet both assert that the methods must be employed by those trained in psychology; they cannot be entrusted to the hands of the teacher and must not be used as a fixed measuring rule. Some of the tests also are not really measures of capacity to know, but merely of knowledge. As to

employing the Binet-Simon tests with adults, such subjects are so susceptible to environment that the results would be vitiated thereby. Dr. Hickling should have tried a series of controls. In estimating the results of tests of the Binet type, the qualitative, rather than the quantitative, results are the most important. Dr. Hickling seemed to convey the idea that because men are deficient in intelligence therefore they drink; Dr. Williams took issue with any such opinion because many very intelligent persons drink. Senile dementia is a very unfortunate term; the dementia here spoken of is not senile, but merely an expression of cerebral arterio-sclerosis. Dementia does not follow the order of development of mental capacities, because suspicion and irritability are not characteristics of childhood.

Dr. Chappell asked Dr. Hickling to give a case showing how the tests are applied.

Dr. Hickling was sorry that Dr. Williams had so mistaken the purpose of the paper. Dr. Hickling had not intended to present the Binet tests for the approval or disapproval of the Society; this system of tests was presented to the profession by Binet and it was seized upon and tried, and now, as a result of the most extensive trial, and after having been modified and re-modified, it is still to be regarded as most important fundamental work for psychometric study. The method gives credit for advanced ability as well as it detects retarded ability. The qualitative and quantitative tests must be considered together and further modified by the time element. The important consideration is that these tests, defective as they are, are being used by individuals and institutions, private and state, everywhere; they are the basis of the important work being done by Franz at The Government Hospital for the Insane; they are being used in all sorts of institutions for correction and custody.

But in the senile, not in the demented senile, the tests are valuable to determine what his mental value is, and may prove useful in court practice for the determination of testamentary capacity, etc. In alcoholics it has always been customary to discharge from custody such patients as soon as they became sober and declared that they were well. But when the chronic alcoholic is submitted to the psychometric tests, it may be demonstrated that after complete sobriety has been attained, still there is more or less mental deterioration, and the degree of it may be estimated.

He hoped to do further work along the same line and to present the matter more fully at another time.

In Memoriam.

JAMES RUFUS TRYON.

Dr. James Rufus Tryon died March 20, 1912, at the Naval Hospital, Brooklyn, N. Y. He was born at Coxsackie, on the Hudson, September 24, 1837. He graduated A. B. at Union College in 1858 and received from that institution in 1891 the degree of Ph. D., and of LL. D. in 1895. He graduated in medicine in 1860 at the University of Pennsylvania. Was appointed Assistant Surgeon, U. S. Navy, September 22, 1863. While serving with the West Gulf Squadron he was on duty at the battle of Mobile Bay and later was placed in charge of the Naval Hospital at Pensacola. At the close of the Civil War he was ordered to Boston. In 1866 he was transferred for duty to the Bureau of Medicine and Surgery, Navy Department, at Washington. In 1870 was ordered on sea duty with the Asiatic Squadron. Returning, was placed on special duty in New York; served there on the Board of Examiners, 1888-9. In 1893 was appointed Surgeon General. September 24, 1899, was retired with the grade of Rear Admiral. After his retirement he was in charge of the hospital at the Sailors' Snug Harbor, Staten Island, which he rebuilt and reorganized. In 1884 and 1898 he was delegate to the International Medical Congresses at Copenhagen and Madrid. He is said to have been a man of genial personality. He was unmarried.

Dr. Tryon attended the 75th anniversary of this Society February 16, 1894, as the representative of the U. S. Navy, and the next year was elected, with the other representatives, an Honorary Member.

It is fitting, therefore, that this Society should take notice of his death and, therefore, it is

Resolved, That this Society pay its tribute of recognition to its deceased member as a man who did long and good service in the Medical Corps of the Navy and attained to the highest place therein;

And Resolved, That a copy of this preamble and resolution be sent to the present Surgeon General.

Signed by the Committee,

D. S. LAMB,
THOMAS C. SMITH,
GEO. M. KOBER.

PROCEEDINGS OF THE MEDICAL SOCIETY OF THE
DISTRICT OF COLUMBIA.

Wednesday, May 8, 1912.—The President, Dr. J. B. Nichols, presided ; about 35 members present.

Dr. T. A. Williams reported from the Committee on Public Instruction that nine public lectures had been given, the total attendance at which was 694. The total cost was \$29.

The President announced the death of Dr. James Rufus Tryon, late Surgeon General, U. S. Navy, an honorary member of the Society since 1895, and appointed Drs. D. S. Lamb, T. C. Smith and G. M. Kober a committee to prepare suitable resolutions.

Dr. D. S. Lamb exhibited a number of skulls from the Army Medical Museum showing lesions of syphilis. Discussed by Drs. Williams, Hazen, Simpson, Isabel Haslup Lamb and D. S. Lamb.

Dr. C. A. Simpson read the paper of the evening : Technic of X-Ray Treatment of Skin Diseases and Cancer. Discussed by Drs. Hazen, Groover and Simpson. See *Jour. Cutan. Dis.*, August.

Wednesday, May 15.—The President, Dr. Nichols, presided ; about 50 members present.

A letter was read from Major Charles Lynch, U. S. Army, inviting the members to visit the exhibit of the International Conference of the Red Cross.

Dr. D. S. Lamb, from the committee, reported resolutions in honor of the late Dr. Tryon. The resolutions were adopted. See p. 207.

On motion of Dr. Roy the Secretary was directed to have a roster of members printed as a folder.

The resolutions of Dr. Hemler offered May 1 (see ANNALS for May, page 179) were considered and laid on the table.

Dr. Moran read a paper, The Value of Sophol in the Prevention of Ophthalmia Neonatorum. Discussed by Drs. Barton, Muncaster, Dufour, Woodward, Williams, I. S. Stone, Roy, Carr, Lemon and Moran. See p. 189.

Dr. Hickling read a paper, A Contribution to the Study of Mental Deterioration. Discussed by Drs. Williams, Chappell and Hickling. See p. 202.

Wednesday, May 22.—The President, Dr. Nichols, presided ; about 45 members present.

A letter from John H. Musser, Jr., was read acknowledging and thanking the Society for the resolutions of respect to the memory of his father, Dr. Musser.

An appropriation of \$107.90 was granted for the publication of the May number of the ANNALS.

Dr. H. H. Hazen, speaking to a question of personal privilege,

stated that a case of pellagra originating in the District Reform School for Girls had been under the care of Dr. Reede and himself. It was found that one factor in the etiology appeared to be a deficient ration of fresh meat, and that the dietary at the school was deficient in fresh meats. The matter got into a newspaper, and they had been under the necessity of confirming the statement, which, however, had not originated with them.

Dr. D. S. Lamb presented specimens of fracture of the skull from accidents in civil life, from the Army Medical Museum, to illustrate a paper read by Dr. E. P. Magruder, Fractures of the Skull. The paper and specimens were discussed by Drs. Vaughan and Jack.

Dr. H. H. Kerr reported a case of volvulus of the stomach and reviewed the literature of the subject, particularly of idiopathic volvulus, to which his case belonged. Discussed by Dr. Vaughan. See *Annals of Surgery*.

Wednesday, May 29.—The President, Dr. Nichols, presided; about 55 members present.

The Executive Committee was authorized to expend \$100.00 in opposing the passage of the bill for the regulation of osteopathy.

The President announced the death of Dr. J. R. Bromwell and appointed a committee, Drs. Cuthbert, J. Taber Johnson and Wall, to prepare resolutions. The committee reported at once, and the report was adopted. See ANNALS for May, p. 173.

The Treasurer was authorized to expend such money as would be necessary for the conduct of his office during the summer interval.

Dr. G. Brown Miller reported a case of unusual complication of labor.

Dr. H. H. Hazen read a paper, Further Observations on Oily Injections of Salvarsan. Discussed by Drs. Hagner, Captain Nichols, U. S. Army, Simpson and Hazen. See p. 199.

Dr. J. D. Thomas presented a patient with pellagra: A white man; about 57; from a rural community in Virginia. He had been seen by Dr. Jeffries, who made the diagnosis, calling Dr. Thomas in consultation to confirm the opinion. They desired to give the members of the Society an opportunity to examine the man, and had not had time to prepare a history of the case. The typical eruption could be seen on the hands, and there was some mental impairment. He had lived a hard life, with poor diet.

Dr. Hazen was glad to see another case so soon after having one in his own practice. As in his case, the skin lesions in Dr. Thomas' case were typical. The histology of the skin in his own case had been studied; there was no inflammatory reaction at all, merely an atrophy of the *rete*.

Dr. Simpson asked if the man had had any symptoms in the summer of 1911?

Dr. Thomas said that the patient's hands were blistered and red, like sunburn, last summer, but that the eruption spontaneously disappeared. His gums are now spongy and ulcerated; tongue is somewhat involved but not entirely typical.

Adjourned until October 2.

WASHINGTON MEDICAL ANNALS.

Journal of the Medical Society of the District of Columbia.

Published Bimonthly by the Society, at No. 2114 Eighteenth Street, N. W., Washington, D. C. Subscription price, including postage, \$1.00 per year, in advance. Single copies, 20 cents. Advertising rates given on application.

COMMITTEE ON PUBLICATION.

D. S. LAMB, A. M., M. D., *Chairman and Editor*, 2114 Eighteenth St., N. W.

Associate Editors.

B. G. POOL, M. D.,	945 Rhode Island Avenue, N. W.
H. H. DONNALLY, M. D.; A. M., B. S.,	1612 I Street, N. W.
TRUMAN ABBE, A. B., M. D.,	Stoneleigh Court.
W. W. WILKINSON, M. D.,	The Rochambeau.

Editorial.

History of the Medical Society of the District of Columbia—This book should be in the hands of every member of the Medical Society. The price is only \$1.00, with 25 cents added if delivered in this city or sent by mail. Address Dr. C. W. Franzoni, 605 I Street, N. W. The books are in the custody of Dr. D. S. Lamb, at the Army Medical Museum.

THE OTHER MEDICAL SOCIETIES OF THE DISTRICT OF COLUMBIA.

THE MEDICAL HISTORY CLUB OF WASHINGTON.—Officers: C. W. Richardson, President; B. M. Randolph, Vice President; H. W. Lawson, Secretary.

THE HIPPOCRATES SOCIETY meets on the second Thursday in each month from October to May. Membership limited to 25. Officers: T. S. D. Grasty, President; W. G. Young, Vice President; L. M. Hynson, Secretary-Treasurer.

SOCIETY OF OPHTHALMOLOGISTS AND OTOLOGISTS of Washington.—R. S. Lamb, President; J. J. Richardson, Vice President; A. B. Bennett, Jr., Secretary-Treasurer. Meets on the third Friday in each month from October to May, inclusive.

CLINICAL SOCIETY OF WASHINGTON.—Composed of 25 active members besides retired members. Officers: C. M. Hammett, President; T. A. Groover, Vice President; W. E. Clark, Secretary-Treasurer; L. A. Johnson and J. D. Thomas, Censors.

Oct. 14. V. B. Jackson, essayist ; at T. A. Groover's. Discussion led by D. W. Prentiss.

Nov. 11. A. B. Hooe, essayist ; at Sothoron Key's. Discussion led by L. H. Reichelderfer.

Dec. 9. F. L. Biscoe, essayist ; at J. D. Thomas'. Discussion led by Monte Griffith.

THE WOMEN'S MEDICAL SOCIETY of the District of Columbia meets on the second Tuesday of each month from October to May, inclusive. The officers are Mary Parsons, President ; Ida J. Heiberger, Vice President ; Ada Thomas, Recording Secretary and Treasurer, and Louise Tayler-Jones, Corresponding Secretary.

GALEN SOCIETY of the District of Columbia. H. J. Bryson, President ; R. L. Spire, Secretary-Treasurer.

Oct. 21, meeting at R. L. Spire's ; election of officers and miscellaneous business.

CLINICO-PATHOLOGICAL SOCIETY.—Active membership limited to 25. Inactive membership : those who have withdrawn from active membership for 15 years. A limited honorary membership of distinguished medical men. Meets on first and third Tuesdays from October to May, inclusive. Officers : W. G. Morgan, President ; Sothoron Key and E. E. Morse, Vice Presidents ; B. M. Randolph, Secretary and Treasurer. Program for 1912 :

DATE.	PLACE OF MEETING.	ESSAYIST.	TO OPEN DISCUSSION.
Oct. 15.	Dr. Parker, 1518 Conn. Ave...	Election of Officers.	
Nov. 5.	" Miller, 1730 K Street.....	Dr. Johnson.....	Dr. Randolph
Nov. 19.	" Hagner, 1824 19th Street .	" Parker	" Dunlop
Dec. 3.	" Key, 1716 H Street.....	" Kerr	" Miller
Dec. 17.	" Kerr, 1742 N Street.....	" Morse.....	" Parker

GEORGETOWN CLINICAL SOCIETY.—Twenty active members ; limited to graduates of the Medical Department of Georgetown University. Meets at University Club, second Tuesday in the month. R. A. Hamilton, President ; J. J. Mundell, Vice President ; J. R. Verbrycke, Jr., Secretary-Treasurer.

THERAPEUTIC SOCIETY of the District of Columbia.—Meets at the G. W. School of Pharmacy, 808 I st. n. w. on the first Saturday in each month. L. H. Taylor, President ; S. R. Karpeles, Secretary.

Program for 1912 :

October 5.—Diabetes mellitus ; Etiology and Pathology, by H. M. Kaufinan ; Symptoms and Diagnosis, by E. H. Egbert ; Treatment, by W. M. Barton ; Discussion, W. M. Sprigg.

November 2.—Alcoholism ; Acute Alcoholism, by L. S. Savage ; Chronic, by Dr. Latimer ; Prophylaxis and Treatment, by M. F. Thompson ; Discussion, D. P. Hickling.

December 7.—Smoker at University Club ; President's address.

THE SECRETARIES of the other Medical Societies of this District are reminded that the ANNALS will publish the schedules of their meetings.

NEW AND NONOFFICIAL REMEDIES. Price, cloth, \$0.50; paper, \$0.25; pp., 298. Chicago: AMERICAN MEDICAL ASSOCIATION, 1912.—This book contains descriptions of and a statement of the actions and uses of all articles which have been examined and accepted by the Council on Pharmacy and Chemistry prior to Jan. 1, 1912. The work of the Council during its seven years of existence and the reports of the Propaganda Department of THE JOURNAL A. M. A. have convinced the physician that in the prescribing of proprietary remedies he must be careful in his selection of those which he directs for his patients. Nowhere else can the physician or the pharmacist turn for reliable, unbiased information concerning the new remedies. This book enables the physician to make such selection and the careful pharmacist to know the character of the remedies he dispenses.

MEMBERS OF THE SOCIETY who favor the Owen bill, and it is to be supposed that all the members do favor it, would do well to say as much to the members of the Senate and House of Representatives whom they personally know.

THE GEORGETOWN UNIVERSITY HOSPITAL, corner 35th and N Streets, N. W., has issued a circular stating its facilities and equipment, and terms to pay patients. For further information address Sister Pauline, at the Hospital.

THE FOURTEENTH ANNUAL MEETING OF THE AMERICAN HOSPITAL ASSOCIATION will be held in the Hotel Ponchartrain, Detroit, Mich., Sept. 24 to 27, inclusive. Those interested can obtain further information from the Secretary, Dr. J. N. E. Brown, 90 Charles Street, East, Toronto, Canada.

THE NINTH INTERNATIONAL CONGRESS OF ZOÖLOGY will meet at Monaco, March 25 to 30, 1913, under the Presidency of H. S. H. Prince Albert 1st. The Secretary is Prof. Joubin, Institut Oceanographique, 195 Rue Saint-Jacques, Paris.

THE AMERICAN ASSOCIATION OF CLINICAL RESEARCH, at its 3d annual session, Sept. 27, 1911, adopted a resolution that centers of clinical research should be formed in the larger cities wherever a number of workers can be brought together for the purpose of research. Any one wishing to participate is invited to address the Secretary, Dr. James Krauss, 419 Boylston Street, Boston, Mass. The 4th annual meeting will take place Nov. 9, at the Academy of Medicine, New York City.

THE SEPTEMBER NUMBER OF THE PROCTOLOGIST will contain the papers and discussions of the American Proctologic Society for 1912.

MR. BOWERMAN, the Librarian of the Public Library, this city, wishes to make his set of the WASHINGTON MEDICAL ANNALS complete. To do this it will be necessary to supply him with the following numbers, namely: July, 1905; January, July, September and November, 1906; January, May and July, 1907, and January, 1911. Will the members of the Society look over their copies and inform Dr. D. S. Lamb if they have any of the needed ones and can spare them?

THE CLEVELAND MEDICAL LIBRARY, in order to complete its set of the WASHINGTON MEDICAL ANNALS, needs copies of the following dates, namely: all of 1904; January, March and July, 1905; all of 1906 except March; January and May, 1907; January, 1908; January and May, 1911. Members of the Society are requested to look over their files and, unless they wish to have them bound, it would be very desirable to complete the set desired. Copies may be sent to Dr. D. S. Lamb, at the Army Medical Museum, who will forward them to the said library.

THE AMERICAN PUBLIC HEALTH ASSOCIATION will meet in Washington September 18 to 20.

THE CONFERENCE of State Boards of Health of North America will meet in Washington September 20-21.

THE TUMOR OF THE BRAIN presented to the Society by Dr. W. P. Carr (see the ANNALS for March, page 11), has been ascertained by microscopical examination at the Army Medical Museum to be a typical angioma.

DR. THEODORE HANSMANN died in this city August 12, at his residence, 1722 Willard Street. His full name was Bernhard Ludwig Wilhelm Theodor Hansmann, but for many years he had been known simply as Theodor Hansmann. He became a member of the Society January 3, 1855; resigned January 11, 1899, having ceased to practice. He was born at Dudeldorf, Germany, September 21, 1821, so that at his death he was nearly 91 years old. A short biographical sketch appears on page 251 of the History of the Society, and a portrait opposite page 57. He was also a member of the Medical Association from about 1856 to April, 1895, when his name was dropped.

Dr. JOHN KURTZ died June 30, 1912. Dr. Kurtz became a member of this Society October 3, 1894. He was born April 20, 1848, at Fort Johnson, S. C. He received the degree of Ph. B. in 1866 and M. D. in 1870 at the National Medical College, this city, now the G. W. University. He removed to Moorhead, Minn., about 1876; was an assistant surgeon of the Northern Pacific System and a pioneer physician of the Red River Valley. He returned to Washington in 1892. A brief sketch appears in the History of the Medical Society, page 352. He was also a member of the Medical Association from October 14, 1893.

"PLAN FOR FEDERAL HEALTH DEPARTMENT.—At a joint conference held in Pittsburgh, June 18, between a committee representing the American Medical Association and a committee from the American Institute of Homeopathy, it was virtually agreed that both would favor a national department of health. The Association was represented by Dr. W. C. Woodward, of Washington, D. C., and Dr. Samuel G. Dixon, of the Pennsylvania Department of Health. The Institute committee was composed of Drs. George Royal, Des Moines, Ia.; J. H. McClelland, Pittsburgh; J. P. Sutherland, Boston; R. S. Copeland, New York, and J. B. Gregg Custis, Washington, D. C."—*Jour. A. M. A.*, June 29, page 2039.

RECENT PUBLICATIONS OF WASHINGTON PHYSICIANS.

Rupert Blue, The Problem of the Public Health, *Jour. A. M. A.*, August 10, p. 413.

J. W. Bovée, Gynecologic Pelvic Drainage, *Jour. A. M. A.*, July 27, p. 249.

J. H. Bryan, Study of Diseases of Accessory Sinuses in Relation to Diseases of the Eye, and Surgical Methods to be Adopted for their Relief, *Surg., Gynec. and Obst.*, June.

C. F. Craig (U. S. A.), Parasitic Amebae of Man and Their Relation to Disease, *New Orleans Med. and Surg. Jour.*, July.

W. G. Erving, Medical Report of the Yale Peruvian Expedition, *Yale Med. Jour.*, April.

H. A. Fowler, Litholapaxy as an Office Operation in Selected Cases, *Surg., Gynec. and Obst.*, July.

F. H. Garrison, Richard Bright's Travels in Lower Hungary, Physicians' Holiday, *Bull. Johns Hopkins Hosp.*, June.

Joseph Goldberger and J. F. Anderson, (U. S. P. H. and M. H. S.), Some Recent Advances in our Knowledge of Typhus, *Jour. A. M. A.*, August 17, p. 514.

H. H. Hazen, Comparison of Pemphigus Foliaceus and Dermatitis Exfoliativa Neonatorum (Ritter) and Etiology, *Jour. Cut. Dis.*, June; abstracted in *Jour. A. M. A.*, July 27, p. 304.

H. H. Kerr, Thoracotomy under Intratracheal Insufflation Anesthesia, *Va. Med. Semi-Mo.*, July 12, p. 157.

C. H. Lavinder (U. S. P. H. and M. H. S.), Certain Aspects of the Pellagra Question, *Southern Med. Jour.*, August, p. 476.

L. C. Lehr, Report of a Case of Gonorrheal Pyelitis, *Jour. A. M. A.*, July 6, p. 36.

C. S. Ludlow, Simple Methods of Differentiating Disease Bearing Insects, *Southern Med. Jour.*, August, p. 488.

G. W. McCoy and C. W. Chapin (U. S. P. H. and M. H. S.), Studies of Plague, a Plague-like Disease and Tuberculosis, among Rodents in California, *Public Health Bull.*, 53, January, 1912.

G. W. McCoy and D. H. Currie (U. S. P. H. and M. H. S.), The Technique of the Laboratory Examination of Rats for Plague; reprint 89 from Public Health Reports.

A. J. McLaughlin, Sewage Pollution of Interstate and International Waters, *Bull.* 83, Hygienic Laboratory, March, 1912.

G. B. Miller, Cystoscope in Gynecology and Obstetrics, *Surg., Gynec. and Obst.*, June.

J. F. Moran, Indications for Abdominal Cæsarean Section in Eclampsia, *Southern Med. Jour.*, June.

H. P. Parker, Arterial Hypertension, *Va. Med. Semi-Mo.*, July 26, p. 194.

B. M. Randolph, Medicine in Lay Literature, *Old Dom. Jour. Med. and Surg.*, July, p. 20.

L. H. Reichelderfer, Surgical Shock, *Va. Med. Semi-Mo.*, August 9, p. 218.

E. W. Reisinger, Burn Involving over one-third of the Entire Body, Recovery and Cause, *Va. Med. Semi-Mo.*, May 24; abstracted in *Jour. A. M. A.*, June 29, p. 2080.

T. L. Rhoades (U. S. A.), The Triumphs of Preventive Medicine, *Maryland Med. Jour.*, August, p. 183.

P. S. Roy, Clynical Value of the Polygraph; Personal Observations, *Va. Med. Semi-Mo.*, August 9, p. 209.

W. C. Rucker (U. S. P. H. and M. H. S.), The Necessity for Rodent Extermination in American Seaports, *Jour. A. M. A.*, June 27, p. 243. Also, The Eradication and Prevention of Bubonic Plague; reprint 88 from Public Health Reports.

E. G. Seibert, Superior Maxilla, its Proper Development, *Annals Otol. Rhin. and Laryng.*, March.

R. W. Shufeldt, U. S. A., Where the Impurists Would Land Us, *Pacific Med. Jour.*, July, p. 402.

A. M. Stimson (U. S. P. H. and M. H. S.), Rabies in the United States During the Year 1911; reprint 87, from Public Health Reports.

L. H. Taylor, The Value of Enterostomy in Ileus, *Mo. Cyclop. and Med. Bull.*, July, p. 397; abstracted in *Jour. A. M. A.*, August 3, p. 397.

Oscar Wilkinson, Dry Necrosis of Mastoid Cells, *Med. Record N. Y.*, June 22. Also, A New Tonsil Forceps, *Jour. A. M. A.*, August 3, p. 369, with cut.

T. A. Williams, Cases Illustrating Rational Treatment of Hysteria Without Minute Psychoanalysis, *Maryland Med. Jour.*, July, p. 178. Also, Chronic Visceral Pain in Relation to Surgery and Psychotherapy, *Surg. Gynec. and Obst.*, June. Also, Treatment of Writer's Cramp and other Occupational Neuroses, *Jour. Abnorm. Psychol.*, June-July. Also, An Unusual Case of Tabes with Toxic Complications in the Etiology, *Med. Record*, July 13. Also, Diet in Nervous Diseases, *Pacific Med. Jour.*, August, p. 474. Also, Psychogenic and Internal Secretions, *Mo. Cyclop. and*

Med. Bull., June; abstracted in *Va. Med. Semi-Mo.*, August 9, p. 232.

Reprints from Public Health Reports: 83, A list of State and Insular Health Authorities; 84, Leprosy in the United States, Transportation of Lepers in Interstate Traffic; 85, Methods and Standards for the Production and Distribution of Certified Milk, adopted by the Amer. Assn. Medical Milk Commissions, May 1, 1912.

PERSONAL NOTES.

Dr. N. P. Barnes was elected President and Dr. L. H. Taylor Secretary of the American Therapeutic Society at the meeting in Montreal, Canada, May 31 to June 1.

Drs. J. S. Boggess, C. W. Chapin and R. A. Herring, of the U. S. P. H. and M. H. S., have been ordered to the Hygienic Laboratory, this city, for duty.

Drs. J. W. Bovée, H. D. Fry and I. S. Stone attended the meeting of the American Gynecological Society, in Baltimore, May 28 to 30, and took part in the discussions.

Dr. Elnora C. Folkmar is the Chairman for this District of the Central Committee on Public Health Education Among Women. Dr. Folkmar has been giving a series of lectures on Sex Hygiene and Related Problems before the woman employees of the National Cash Register Company, at Dayton, Ohio. (See *Jour. A. M. A.*, August 10, p. 455.)

Dr. H. H. Hazen attended and took part in the discussions at the meeting of the Section of Dermatology of the A. M. A. at Atlantic City.

Dr. T. A. Kramer fell from a car, August 10, and dislocated his shoulder.

Drs. C. F. Craig and H. J. Nichols, U. S. A., attended the meeting of the American Society of Tropical Medicine at Atlantic City, June 3, and took part in the discussions.

Dr. Charles Richards, Col., Med. Corps, U. S. A., has been ordered to the Army Medical School, relieving Col. L. A. LaGarde, who is soon to be retired.

Dr. A. R. Shands was elected President of the American Orthopedic Association at the meeting at Atlantic City, May 30 to June 1.

Dr. E. R. Stitt, U. S. Navy, was elected President of the American Society of Tropical Medicine, June 3.

WASHINGTON MEDICAL ANNALS

SYPHILITIC TRACHEAL STENOSIS.*

By E. H. REEDE, M. D., Washington, D. C.

The following case, observed in the medical wards of Freedmen's Hospital, Washington, D. C., merits attention in that it is representative of a type of respiratory disease, the rarity of which tends to preclude its early recognition, and to constrain the use of an effective therapy. I regret that this particular case can serve only as a text for a brief preachment upon the subject in general, instead of an illustration of the advance in the treatment of the morbid condition.

Rachel H., age 32, was admitted to the hospital June 13, 1911, complaining of cough, shortness of breath and weakness. Her previous history was negative; she had not had diphtheria nor could any history of lues be elicited. The left leg was injured seven years before, followed by a scar on the leg. Two years ago she underwent an operation for some abdominal condition, after which menstruation ceased. Her last illness began in February, as a cough, which continued, and in March she began to have wheezing and shortness of breath on exertion; these recurred with increasing frequency until they became constant. She has been under treatment for asthma.

She was a large, well nourished woman, weighing 200 pounds or more. She lay nearly prone, with one pillow. She breathed about twenty times per minute. The breathing was marked by an audible in-and-out stridor, broken at intervals by a restrained laryngeal cough. There was not much play of the accessory muscles of respiration. Inspiration and expiration were both prolonged, making a nearly continuous stridor.

She made no complaint of pain. Her breasts were large and pendulous, but no indurated masses were felt. The glands in the arms and axillae were not palpable. Thyroid not palpable. A few glands the size of peas were felt above the right clavicle. The chest, both front and at the axillae, was resonant on percussion. The stridor was very high pitched, more intense over the larynx, diminishing in intensity over the chest, but retaining

* Read before the Medical Society, October 2, 1912.

the characteristics heard over the larynx. Stridulous breathing was heard everywhere over the thorax with great prolongation of inspiration. No râles were audible anywhere. At the back of the thorax the chest was resonant throughout. Heart sounds clear. Urinary examination: specific gravity, 1,015, acid, no sugar nor albumen. Blood examination: hemoglobin, 60; white cells, 7,900; smear, normal. Noguchi reaction reported negative. Blood pressure, 185. A laryngoscopic examination found the larynx normal. The upper trachea seemed clear. A severe suffocative attack occurred during the examination.



A radiograph was then taken, but showed no abnormal shadows in the course of the aorta nor in the tracheal region. The expediency of a tracheotomy was opposed on the ground of the probable low situation of the constriction.

Medication was in every way unsatisfactory; potassium iodide was given, but the subsequent freer secretion interfered markedly

with respiration. Atropin was then substituted and some periods of improvement were observed, but the general course was progressively downward. The suffocative attacks recurred with increasing severity until the fatal one, July 12, 1912.

Pathological Report by Dr. Van Schweringen. "At the bifurcation of the trachea is a cicatrix forming a ring continuous with the septum, narrowing the lumen to two mm. in diameter. The ring completely surrounds the inside of the trachea. In the right bronchus, $2\frac{1}{2}$ cm. below the bifurcation, is a star-shaped cicatrix, between the radiating bands of which are three distinct erosions, the mucous membrane showing ecchymoses. Two cm. below the bifurcation in the left bronchus, at its first branching is another cicatrix, star shaped and radiating, constricting the lumina of both bronchioles. Two cm. below this in the upper branch is another radiating cicatrix. The lungs show marked oedema throughout and a slight degree of hypostatic congestion at the bases. Other organs are normal. Microscopical examination: A section of the cicatrix at the level of the bifurcation shows dense fibrous tissue strands sparsely sprinkled with small cells. A section through the eroded area reveals a dense infiltration of small round cells separated by layers of fibroblasts from layers of formed connective tissue. No giant cells seen."

The evidence in this case in favor of a syphilitic origin rests solely upon the presence of these multiple spider-like scars throughout the trachea and bronchi. They are not found in relation with any other disease, whereas they have been found in individuals having a definite luetic history; they have been seen at autopsy where syphilitic lesions were present in other organs; they have occurred in cases of inherited syphilis, and recently they have been seen by the bronchoscope following the absorption of gummatous deposits.

History.—It was recognized by Cayol, in 1810, that syphilis could cause lesions in the trachea without lung or laryngeal involvement, and Munk, in 1841, reported ulceration in the bronchi in a case where syphilitic infection had occurred 18 months previously. The first clinical observations on a case of syphilitic tracheal stenosis were published by Worthington in 1842, and may still be read with edification. He thus reports his case: "Charles Newrick, 49, an agricultural laborer, of spare habit, first came under my notice in August, 1837. During the early part of his life he had enjoyed tolerably good health with the exception of occasionally suffering from a slight cough, which was sometimes increased by the employment of threshing, owing to the dust rising from the corn and irritating the fauces and respiratory passages. In 1833 he had contracted syphilis, for the cure of which mercury had been administered, but not to an immoderate extent. At this time he experienced an increase of cough and

soreness about the throat, attended by slight difficulty of swallowing. His general health began to decline, as denoted by occasional feverishness, impaired appetite and loss of flesh. The symptoms progressed and steadily advanced until the time of my first seeing him, when I found him suffering from the following symptoms: During the last twelve months he has been confined to the house. He was much emaciated and was very feeble and complained of want of appetite and of uneasiness about the throat. His state of breathing more particularly arrested my attention, as regarded both the peculiarity and the noise attendant upon inspiration and the very painful effort required for its accomplishment. In the ordinary act of inspiring, a sound was produced exactly resembling that produced by an unsound horse, called a roarer or whistler, and this sound at once suggested the idea that in the act of inspiring the air passed through a tube of preternaturally small diameter. Each inspiration occupied ten seconds, the chest expanding only six times in a minute. Expiration was performed in much less time than inspiration and with much less exertion and with diminished intensity of roaring. Upon examining the muscles of the neck and throat I was forcibly struck with their violent action, more particularly with that of the sterno-hyoid, sterno-thyroid, and omò-hyoid, and other muscles of the larynx, while the trapezei, intercostals and diaphragm were comparatively much less acted upon. From these circumstances, aided by other symptoms, I could not fail of concluding that the impediment to the free passage of air into the lungs existed within the trachea or larynx, but I could not satisfactorily determine which of the two was principally affected. Vocalization was imperfect, the sounds of the utterance being hoarse and rough. A troublesome cough was present accompanied with a copious mucopurulent expectoration, the checking of which tended in some degree to increase the difficulty of breathing. He suffocated in less than five minutes while eating bread and milk, in March, 1841. The autopsy showed a complete stricture of the size of a crow quill, just below the cricoid cartilage. None of the usual signs of inflammation. Tracheal rings at stricture converted into fibrocellular tissue. Epiglottis showed marks of former ulceration. Larynx showed no appearance of ever having been ulcerated."

During the next twenty-five years a number of cases were reported, so that Gerhardts in analyzing five cases in his own service, one of which came to autopsy, was able to collect reports of seventeen other cases, and from this material to elaborate the clinical picture of tracheal stenosis, which is still a criterion of the ailment. He divided the course of the disease into three stages and believed that he obtained improvement in the first stage. He described the cardinal signs and emphasized the dis-

tion from laryngeal stenosis. His paper was published in 1867.

In 1877 Vierling, stimulated by a clinical history and pathological material, referred to him by Ziemssen, tabulated the important features of 46 cases which he was able to find in the literature. He called attention to the futility of tracheotomy, reporting 14 operations, all proving fatal. Of his cases, 30 had laryngeal involvement, 36 had some implication of the trachea, and 5 were purely bronchial in location. The duration of symptoms was two months to six years.

In 1903 Connor, whose attention had been arrested by the death of an undiagnosed case in his service at the Hudson Street Hospital, published an exhaustive study of all reported cases, adding 82 to those previously reported by Vierling. His masterly analysis of these cases furnishes the basis for the present knowledge of this condition.

Since the appearance of Connor's article, interest in tracheal and bronchial stenosis has been greatly stimulated, especially in Europe, by the development of the art of bronchoscopy. Jackson, in this country, was the pioneer and has done much in perfecting the technique of the procedure. Marcus, in 1909, following work along this line, was able to report progressive improvement of a case of tracheo-bronchial stenosis, by successive dilatations of the air passages with the Bruening-Killian instrument.

The appearance of salvarsan offered a new agent for the arrest of tenacious syphilitic processes, and Halle, in 1911, reported observing a diffuse infiltration of trachea and bronchus, disappearing under the use of Ehrlich's remedy. The subsiding of the gummatous infiltration gave sufficient respite from the stenotic symptoms to admit of leisure to attack the subsequent stricture by instrument of dilatation.

Morbid anatomy.—Fowler well summarizes the essential points in the pathology of tracheo-bronchial stenosis. "The disease commences as a localized gummatous infiltration of the mucosa, causing in the early stages considerable swelling. The gumma may be absorbed, and a cicatrix results, or it may break down, and an ulcer form, and this may heal with the production of a scar. On laying open the trachea, it may be found to present one or two or numerous cicatrices, or in severe cases the tube almost from end to end may be covered by white fibrous scars, having a radiating appearance. The narrowing of the tube may be most marked at one spot or may extend for some distance. The disease is most often situated at the lower end of the trachea." The larynx as a rule is not involved. The bronchi are implicated in almost half of the cases. Active syphilitic lesions elsewhere seem to be the exception. In Connor's series of 128 cases, gummatous swelling was present in 20; ulceration occurred in 51. Twelve

of these perforated and 5 led to an immediate fatal outcome by opening an important vessel. Cicatrization was present in 60 instances. Peritracheal thickening is recorded of 8. The condition was restricted to the trachea in 56, included the bronchi and trachea in 33, and the bronchi alone in 11. The larynx was affected in only 12 per cent. of these cases. In 10 reports the infection was inherited.

Symptomatology.—The course of the disease is divided by Gerhardt into three stages; that of irritation, that of stenosis and that of suffocation. The stage of irritation corresponds to the pathological condition of gummatous infiltration. Gerhardt cites the following example: "A merchant, aged 36, incurred a typical primary lesion with secondary expressions, eight years previously. Mercury was given and health seemed restored up to two years ago. Then after exposure to cold on the road, hoarseness appeared, which disappeared with regulated living and anti-catarhal treatment. Since the last half year he has had an irritative cough, substernal tickling and a sparse expectoration. The voice was weaker and there was some difficulty in breathing. The patient became thinner, somewhat cyanotic and the cervical and inguinal glands were swollen. The larynx was negative. Auscultation and percussion of the lungs were negative. Over the sternum is heard a constant harsh stridor. All symptoms disappeared under treatment by iodide." In my own experience this case occurred: "Rachel W., aged 38, first came under observation November 4, 1908, with well defined macular secondaries and an elevated temperature. She was given the bichloride and potassium iodide in solution, which was followed by a fairly prompt subsidence of the symptoms. She returned October 10, 1909, complaining of pain under the right costal margin. Examination showed a palpable mass in the epigastrium, which was continuous with and moved with the liver margin. Relief again followed the use of mercury and iodide. April 10, 1910, she sought relief for severe pain radiating from the right costal margin to the right scapular angle; there was at this time a harassing brassy cough. Some time in the fall of 1910 several annular lesions showed upon the neck. In April, 1911, she was forced to take to bed by reason of cough and shortness of breath. The cough was very dry and acutely paroxysmal; distinctly peculiar in its metallic quality and the tenacity of the paroxysms, which seemed well-nigh continuous for several minutes at a time. The expectoration was scanty but streaked with blood. A well marked inspiratory stridor was heard over the sternum. This condition also improved under iodide. Salvarsan was then administered by Dr. Hazen, one injection being given, and to the present time there has been no recurrence of symptoms."

The stage of stenosis is considered to coincide with the inci-

dence of organized and permanent contractures in the mucosa. The physical signs are well marked.

Stridor is the most striking single phenomenon; it appears early, at first only with inspiration, but when well developed, with both acts, but maintaining an inspiratory intensification. It is a high-pitched wheezing sound, audible several feet from the bed. As heard with the stethoscope, its maximum intensity is over the larynx, but it is well heard, though with diminishing intensity through the lung regions to the bases. It is equal on both sides and maintains its pitch and tone throughout. The vesicular breath sounds are obliterated, being replaced by the stridulous breathing. No râles are heard until the smaller bronchi are drenched with retained secretions or a terminal oedema supervenes.

Dyspnoea of inspiratory type dominates the picture, in which the long laborious intake of breath contrasts with the shorter, easier expiration. By the stethoscope the length of inspiration is found to be inordinately increased. It follows much closer upon expiration, at the expense of the expiratory pause, and produces a well-nigh continuous cycle of sound. The violent muscular action about the neck is attended by very slight laryngeal excursion, the movement of the Adam's apple seldom exceeding one cm. The voice is weak from the lessened air volume, but retains its tone.

Tirage, or inspiratory retraction, is observed in the soft tissues near the diaphragmatic attachment, and in the region of the clavicle. The attitude of selection seems to be one of flexion forward of the head upon the neck, with the face looking downward, and the prone position is sometimes assumed with comfort, if the neck flexion is maintained.

Unequal narrowing in one bronchus is evidenced by diminution of vocal fremitus, lessened expansion and decrease in the intensity of the breath sounds on that side.

Complete obstruction of one bronchus may be inferred when the examination demonstrates resonance with auscultatory silence throughout a bronchial area.

Diagnosis.—The diagnosis can be made directly and positively by the bronchoscope. Jackson has well demonstrated that point.

Inspiratory stridor, inspiratory dyspnoea, tirage, with a clear larynx and absence of pressure signs, is conclusive of stricture.

A history of infection or subsequent expression of syphilis is only of value when positive. A large number of cases deny contagion and twenty per cent. of Connor's cases had no intermediate lesions. The Wasserman reaction should prove of value.

Stridor and dyspnoea following other syphilitic signs is suggestive of tracheal localization.

Differential Diagnosis.—Asthma should not cause confusion,

but it is possible that some cases are considered as emphysema and chronic bronchitis. In asthma the dyspnoea and stridor are of the expiratory type. The stridulous breathing here is dependent on many musical râles which vary in tone and in pitch in different areas and in the same area at different times. A point of maximum intensity with graduated transmission of the stridor equally throughout both sides, and maintenance of its quality, is lacking.

Laryngeal stenosis, when not excluded by the mirror, expresses itself in the change in voice tone, the exaggerated laryngeal excursion and the up-flung head.

Pitt, investigating causes of bronchial obstruction, found among 11,000 autopsies at Guy's Hospital, 131 cases of stenosis. Of these, external causes operated in 109, and internal in 22. Among external causes were 35 aneurisms, 56 malignant growths, 12 simple glandular enlargements, 2 gummata, and 3 abscesses. The internal causes included 8 of primary cancer, 8 foreign bodies, 5 syphilitic strictures, and 1 case of bronchiolitis.

External causes of stenosis or compression stenosis may be conveniently considered as mediastinal masses. Their exclusion rests upon the negative findings in the x-ray plate, the absence of anomalous areas of dulness, and the absence of pressure effects. Aneurism, and cancer of the oesophagus, possess also certain well-known intrinsic signs.

Of internal causes, primary cancer is most important. Here cachexia appears early, the expectoration is sanguineous and foul smelling, and, as Pitt points out, gangrene of the lung with effusion is an early and fairly constant finding. The onset of stenotic symptoms in health, frequently in children, with signs of complete closure of a bronchus, is significant of foreign body. The radiograph is conclusive in these cases.

An acute obliterating bronchiolitis is described by Fraenkel, where, after exposure to corrosive fumes or dust, a dyspnoea rapidly appears, with increasing cyanosis and signs of acute emphysema, with the presence of crepitant râles.

Prognosis.—Of Vierling's 46 cases, 39 died, 3 were cured and 9 improved. Of Connor's 82 cases, 58 died, 15 were cured and 9 improved. The mortality of all cases was 76. Death resulted in 19 cases from pneumonia, in 11 from suffocation and in 4 from hemorrhage.

Treatment.—Mercury and iodide undoubtedly arrest many cases of tracheal syphilis during the stage of infiltration. Little can be expected of them when scarring is taking place. Some cases have apparently developed in the face of treatment, sufficient to combat syphilitic expression elsewhere. Considering, as seems most probable, that a concomitant condition exists of infiltration and replacement by fibrous tissue, the method which most com-

mends itself is immediate arrest of the condition by the use of salvarsan or its congener, the holding of the ground gained by later use of mercury, and meanwhile the relief of the stricture by bronchoscopic dilatation. Illustrations upon this point are furnished by Marcus and Halle. Marcus reports in 1909 admitting to his service a woman aged 35 who had been infected with syphilis fourteen years previously, had enjoyed thirteen years of immunity before exhibiting a gumma of the hard palate. This disappeared under iodide. One month later a stridor developed with marked lengthening of inspiration uninfluenced by mercury and iodide. Examination showed the larynx clear. Direct bronchoscopy by the Killian and modified Bruening instrument showed involvement of both bronchial orifices by a circular stricture at the bifurcation. Repeated dilatation of the bronchi by this instrument was followed by progressive improvement.

Halle's case, reported in 1911, was that of a woman aged 29, who had been infected with lues eight years before, and suffered from ulceration in the mouth, which persisted in spite of four courses of mercury inunctions. Four months before admission, asthmatic attacks developed. Bronchoscopy showed diffuse infiltration of the trachea, stenosing the left bronchus. No other lesions in the body. The Wasserman test was positive. Salvarsan was given and fourteen days later the infiltration had disappeared, leaving a circular stricture in the trachea, stenosing the left bronchus. The condition of the patient improved, and Halle announces his intention of dilating the stricture by the Bruening-Killian method.

BIBLIOGRAPHY.

1. Worthington. *Med. Chir. Trans.*, London, 1842, vol. v, p. 220.
2. Gerhardt. *Deutsch. Arch. f. klin. Med.*, 1867, xxv, p. 535.
3. Vierling. *Ibid.*, 1878, xiv, p. 325.
4. Schroetter. *Monatschr. f. Ohrenheil.*, 1881, xv, p. 196.
5. Seifert. *Muench. med. Wochenschr.*, 1895, xlii, p. 719.
6. Connor. *Am. Jour. Med. Sc.*, cxxvi, 1903.
7. Marcus. *Monatschr. f. Ohrenheil.*, Berlin, 1909, xliii, p. 116.
8. Halle. *Berlin klin. Wochenschr.*, 1895, xlviii, p. 37.
9. Cayol. *Recherches sur Phthisie Tracheale*, Paris, 1810.
10. Munk. *London Med. Gazette*, 1841, p. 210.
11. Pitt. *The Lancet*, 1910, vii, p. 674.
12. Fowler. *The Diseases of the Lungs*, London, 1898, p. 78.

Dr. Reede prefaced his paper by stating that Dr. J. J. Richardson had been associated with him in the study of the case reported in the paper and that it was expected that Dr. Richardson would take part in the presentation of the paper, but that he was unfortunately absent from the city.

Dr. A. F. A. King said that Dr. Reede's essay was, so far as his memory served to recall, the first presentation of the subject in its entire history before this Society; and in Dr. King's opinion

the matter could not have been presented in a more complete and satisfactory manner. He wished to compliment Dr. Reede upon the paper.

Dr. Lochboehler said that from the nature of the case it was plainly evident why medical treatment was ineffectual; but he wished to inquire just why tracheotomy was not indicated.

Dr. J. D. Thomas wished to add a word of congratulation to Dr. Reede. He knew little of the subject, but the paper and case report brought to mind a case which he studied with great interest, in which there was difficulty in differentiating between tracheal or bronchial stenosis from intrinsic cause and the same condition from external pressure. The patient had been brought to the hospital with the diagnosis of asthma, and while there was typical expiratory dyspnoea, there were periods of very marked inspiratory difficulty. On examining the patient he thought he could detect evidences of pressure on the trachea or the left bronchus; closer examination led him to the diagnosis of aneurysm of the aorta. The x-ray was not employed in this case, but death and autopsy proved that there was an aneurysm pressing upon the trachea. At first glance it would seem that it ought to be easy to differentiate such conditions (and the use of the x-ray does make recognition of aneurysm easy), but with all the diagnostic helps there will be met difficult cases, such as the one just cited.

Dr. McKimmie was much interested in the case report as he was in the whole paper. The case recalled two cases in his own practice in both of which tracheotomy was done without relief. The first case was a man, sent into the hospital with the diagnosis of asthma. There was a typical expiratory stridor, but the expiratory movement was accompanied by an occasional peculiar phenomenon of occlusion, as if something was acting like a ball valve. This patient did well under treatment for a while, but suddenly became cyanotic and seemed moribund; a low tracheotomy was done, with partial relief for a time, but the patient died after a few hours. No autopsy was allowed.

The second case was that of a young negro girl who suffered from a sudden suffocative attack; intubation with the largest size tube did no good; low tracheotomy was then done, revealing a cicatricial stenosis of the trachea. This patient later died of purulent pneumonia.

Dr. Reede's conclusion that the use of the bronchoscope will effectually reveal the true nature of these cases is quite true; the diagnosis will thus be made clear, and in some cases dilatation of the stenosis can be done.

Aside from the conditions cited by Dr. Reede, it was interesting to note that Jackson has reported the case of a child of four years who suffered from tracheal stenosis, caused by the pressure

of a persistent thymus gland; the condition was cured by extirpation of the gland. This is one more possible causative factor to bear in mind.

Dr. Reede said that the futility of tracheotomy was not so apparent from the present appearance of the specimen; but the stricture involves both bronchi at the bifurcation, and in addition there are other cicatrices further down in both bronchi. The bronchoscope was not used in this case because at the time the hospital did not possess one; Dr. Warfield, the Superintendent, has since procured one of the latest type.

OBSTRUCTIONS OF THE ALIMENTARY CANAL.*

A SYMPOSIUM BY

DRS. W. P. CARR, G. T. VAUGHAN, H. H. KERR,
E. P. MAGRUDER AND T. A. GROOVER.

I: OBSTRUCTION OF THE PYLORUS.

BY W. P. CARR, M. D.,

Washington, D. C.

This short paper is largely based upon personal experience and observation. It may appear dogmatic, but I do not wish to be so understood. I have omitted argument and explanation only for the sake of brevity, and invite the freest discussion and criticism.

It is only in the last decade that the frequency and importance of partial and incomplete obstruction of the alimentary canal, in its various segments, has been recognized. But for some years the impression has been growing that most cases of painful digestion are due to this cause.

Pyloric stenosis was the first form of partial obstruction to be well understood, and its nature and effects were made plain chiefly through the work of Robeson and Moynihan.

Previous to the reading of Moynihan's classic paper in this city, in this very room, about eight years ago, it was the general belief, in this country at least, that the chief cause of pyloric stenosis was the contraction of scar tissue following gastric or duodenal ulcer. And this was accepted as practically the only cause except cancer.

Moynihan showed conclusively that ulcer is the *result* usually and *not the cause* of pyloric obstruction; and we now know that such obstruction is the chief cause, not only of ulcer and dilatation of the stomach, but of nearly all painful forms of gastric

* Read before the Medical Society, October 9, 1912.

indigestion. We know, too, that obstruction may be functional as well as organic, and congenital as well as acquired.

Obstruction may be due to simple spasm of the circular muscle fibers of the pylorus, to hypertrophy or hyperplasia of these fibers, or to connective tissue hyperplasia. Rarely it is due to benign or malignant growths, or adhesions from gallbladder inflammation. Simple irritability or spasm of the pylorus may exist as a temporary or persistent phenomenon, and may give rise to discomfort varying greatly in both duration and intensity. Nearly all, if not all painful attacks of gastric colic are due, in part at least, to pylorospasm or obstruction. For, if the gas in the stomach can be discharged readily, either by eructation or by passage into the intestine, the pain is at once relieved with relief of tension, and, though there may be flatulence, there will be little pain in its passage through the bowel, unless due to some additional obstruction lower down. Acid fermentation of food, gas and burning pain do not occur to any great extent without some form of pyloric obstruction.

Even the pain attributed to ulcer of the stomach is really due to distension of this organ on account of the pyloric stenosis, practically always present. This is proven by the fact that gastroenterostomy relieves this pain at once, long before the ulcer has time to heal.

Simple pylorospasm may be caused by irritating food, or fermentation products, in the stomach, is often relieved by vomiting, and the attacks may be so transient or infrequent as to require no treatment. On the other hand, it may be habitual and of such severity as to make life miserable, and in such cases is almost sure to lead in time to ulcer or dilatation or both.

The diagnosis of pyloric obstruction may be made with considerable certainty when there are symptoms of acid gastric indigestion accompanied by marked pain, or distension of the stomach.

A more difficult thing is to determine the nature and degree of obstruction, whether spasmodic or organic, and whether or not it will yield to medical treatment or require a surgical operation. But a trial of medical treatment will determine this.

In cases of rather rapid onset and not more than a few years' duration, without marked dilatation, or ulcer, and where food is not retained in the stomach longer than six or eight hours, we may assume that the obstruction is simple spasm. But, where dilatation is marked, or ulcer is present, or where a portion of the food is retained for 12 to 24 hours, we have good reason to suspect a congenital or acquired hypertrophy of the pyloric muscle, and perhaps a hyperplasia of the connective tissue as well.

Cancer can usually be excluded, even in severe cases, by the absence of classical symptoms and signs, and especially by labo-

ratory examination of the stomach contents. The important thing, however, is to diagnose obstruction and cure the patient before degenerative changes occur. This should be done by medical treatment, if possible ; or by surgical operation, if thorough and competent medical treatment fails.

Any case of gastric indigestion, severe and persistent enough to affect the general health and nutrition, and causing considerable gastric pain, should be cured. Any case of *painful acid gastric indigestion* should be cured. I say painful, because there are painless forms of indigestion, due to general causes and to poor quality of gastric juice, that may not be curable ; and I say gastric indigestion, because I do not wish to include the secondary indigestions of chronic nephritis, cardiac lesions, gallstones and many general diseases. But, with the exception of cancer and achylia gastrica, *painful acid* gastric indigestion is due to some form of pyloric obstruction and, unless complicated by other serious disease, can be cured, and should be cured, by gastro-enterostomy, if competent medical treatment fails ; and should be cured before the patient goes on, through years of suffering, to the stage of dilatation, ulcer and extreme malnutrition.

Any case not yielding to the treatment of the general practitioner should have the benefit of examination and advice in consultation of a competent stomach specialist, or be sent to him for treatment. If this fails operation should be considered, and should not be delayed until conditions have become extreme.

I shall not go into the expert methods of examination with test meals, swallowing of strings, x-ray photographs, etc., except to say that these methods are exceedingly valuable in determining the absence or presence of cancer, ulcer and dilatation, and the grade of obstruction. The points I wish to emphasize especially are : First, that pyloric obstruction is easily diagnosed with considerable certainty. Excluding cancer and achylia gastrica, a painful acid gastric indigestion is sufficiently diagnostic for practical purposes. Secondly, that the expert assistance of the competent stomach specialist and radiographer should be used in any case of doubt. Third, that when good medical treatment fails after a reasonable trial operation should be done without too great delay.

The operation of posterior gastro-enterostomy is now, in the hands of a skillful surgeon, one of the cleanest and safest of abdominal operations. It can be relied upon to cure ulcer of the stomach, dilatation of any ordinary degree, and the painful indigestion of pyloric spasm or obstruction. The results are more brilliant than those of most surgical operations and more certain. Patients who for years have been martyrs to painful indigestion and confined to a most restricted and often unpalatable diet suddenly find themselves able to eat any ordinary food in good quantity with keen appetite, and with no unpleasant symptoms.

They gain rapidly in weight and vigor, and are often relieved of other exceedingly troublesome affections that have been produced or perpetuated by malnutrition.

Where marked dilatation of the stomach exists, or ulcer, I have little faith in medical treatment. True, the ulcers may be cured in many instances by long rest and careful diet, or by duodenal feeding through a tube passing through the stomach into the duodenum. And these cases may remain cured of the ulcer by careful diet for the rest of their lives. But the cure is slow, uncertain, entails much disagreeable manipulation and great care, and is incomplete in that the pyloric obstruction remains and causes more or less painful digestion, even on the most careful diet, and without great care ulceration will probably begin anew. On the other hand, patients, who have a gastro-enterostomy, are confined to bed but two weeks as a rule, suffer very little during convalescence, and are really cured, at least symptomatically. They are able, usually in two weeks, to eat as ordinarily well persons do, without fear of the consequences or fear of return of the ulcer.

In view of these facts I think that the operation is the treatment of election in all cases of ulcer, where it is not contraindicated by some other chronic incurable condition that would render an operation unsafe. It should be resorted to earlier and oftener than is the present custom, and I have no doubt that such will be the practice in the near future.

Congenital pyloric stenosis is not infrequently complete, and is due usually to a thickening of the muscular ring of the pylorus and more or less connective tissue hyperplasia. The diagnosis is made from the distension of the stomach, absence of distension in the lower abdomen, vomiting of all food, more or less complete absence of milk stools, and rapid emaciation. In incomplete forms the symptoms are not so severe and rapid, and spontaneous recovery sometimes occurs.

Ingenious methods of treatment have been devised for incomplete obstruction, such as the swallowing of a fine rubber tube with a shotted bag at the end which will pass through the pylorus in from 12 to 24 hours and may then be blown up and withdrawn slowly, dilating the pyloric opening as it passes through it. Such methods or expectant treatment are of course only applicable to incomplete cases.

Complete obstruction demands immediate gastro-enterostomy, and this is by far the most preferable method of treating all severe cases. Contrary to the belief long held, infants stand such operations as well or better than adults, provided the hemostasis is good. In cases of less severity it may be advisable to wait or employ the dilating tube and bag but we should be careful not to allow emaciation to progress far before resorting to the surgical operation.

2 : LANE'S KINK, CECUM MOBILE AND JACKSON'S MEMBRANE
AS CAUSES OF PARTIAL OBSTRUCTION OF THE BOWEL
AND CHRONIC CONSTIPATION.

By GEORGE TULLY VAUGHAN, M. D.,

Washington, D. C.

I do not propose to discuss the cases of acute obstruction of the bowel which arise from volvulus, or bands and adhesions which follow appendicitis and other frank intraperitoneal inflammations, but to limit myself to certain conditions which have attracted attention only within the last ten years or so, viz: the Lane Kink, the Mobile Cecum and the Jackson's Membrane.

The Lane kink is the term applied to an angulation of the last few inches of the ileum, within six or eight inches of the cecum, but Lane also described kinks in the colon, one at the junction of the hepatic flexure with the transverse colon, and another at the junction of the splenic flexure with the descending colon. The cause of the kinking of the ileum is generally conceded to be ptosis of the cecum, congenital or acquired, dragging down the ileum as far as its attachment by its short mesentery will permit, making an angle at its fixed point, the partial obstruction being still further increased by the formation of a band of adhesions on the under surface of the mesentery, the contraction of which causes rotation of the ileum on its longitudinal axis.

The Mobile cecum and dilated cecum, as described by Wilms Blake and others, is a cecum with a mesentery which permits abnormal motion. The cecum is often very much dilated.

Jackson's membrane is a radiating, thin, vascular veil or spider-web-like tissue, found extending from the parietal peritoneum, external to the ascending colon, across that bowel, to which it is loosely attached, but may distort the colon by reducing its length or lumen. This membrane is found on the ascending colon, beginning above the cecum, rarely on the cecum, and extending at intervals or continuously to the hepatic flexure, sometimes taking in the transverse colon and drawing it down parallel with the ascending colon, like a double-barreled shotgun. The membrane is found also on the splenic and sigmoid flexures. These adhesions in connection with the colon were described in a general way, years ago, by Virchow, and more recently by Lane, but a typical description of the membrane, with its probable pathological relations and treatment, was forcibly presented in 1908 by Jabez N. Jackson.

Symptoms.—A patient, male or female, of any age, but especially a female in early adult life, complains first of occasional, then of frequent, and finally of habitual, constipation, with symptoms of autointoxication, such as neurasthenia, etc. Uneasiness, tenderness, or pain in the right iliac fossa, with exces-

sive gas formation, is often complained of. The patient vomits occasionally and has lost weight. The patient has had several attacks of severe colic, coming on after a heavy meal consisting largely of meat, pain in the region of the cecum, followed by abundant stools, which give relief. Often a mass can be felt in the cecal region (Gerster). There is little or no fever.

What is the diagnosis?—It may be appendicitis, Lane's kink, mobile or dilated cecum, or Jackson's membrane, any one, two or all of these conditions combined.

In making the diagnosis the use of the bismuth meal and Roentgen ray is of great importance not only in locating the situation of the viscera and the points of constriction, but also in estimating the motility of the stomach and other organs.

It is interesting and instructive to read the opinions of those surgeons who have had most experience with the conditions mentioned.

According to Lane "the cecum becomes dilated and elongated, so much so that when distended it occasionally fills the entire pelvis, displacing and compressing the viscera which normally occupy this space. The portion of the cecum above the brim of the pelvis, together with the ascending colon, is retained in a position of abnormal fixity to the posterior wall of the abdomen. This is effected by the development of adhesions between the outer aspect of the large bowel and the peritoneum covering the abdominal wall in its vicinity. * * * The bands and changes to which I have called attention are evolutionary and not inflammatory, and exist, in the first instance, for the advantage of the individual."

Jackson evidently thinks the veil or membrane is caused by inflammation, as he calls it, "membranous pericolitis."

Charles Mayo says, with reference to the membrane of Jackson: "We believe that this condition is undoubtedly due to the late rotation of the bowel and descent of the cecum from its hepatic position, after the formation of the parietal portion of the peritoneal cavity, in the infant. The cecum burrows its way into position, as it were, through the peritoneum."

F. H. Martin says: "The actual cause of the bend in the intestine and the adhesions complicating it and the change in its mesentery are due to traumatism, as a result of the prolapsed cecum dragging upon it, or the pulling of the remainder of the small intestine upon it, or the grinding of superimposed viscera that are subject to abnormal descent upon it."

Connell says: "That the conditions under discussion are not inflammatory would seem to be indicated by their very definite localization."

Binnie believes it to be a primary pericolitis.

A. G. Gerster believes: "The peritoneum reacts to the infectious processes, ordinarily associated with chronic colitis, by the

formation of characteristic vascularized transparent membranes (pseudo-peritoneum), which take their origin along the external lateral aspects of the cecum, ascending colon and the hepatic flexure on one side, and the sigmoid flexure, descending colon and splenic flexure on the other." He thinks that with a preponderant meat diet putrefactive changes take place, leading to the penetration of the intestine by pathogenic microbes.

Blake, speaking of the voluminous or movable cecum, says: "What the cause of the condition is, is not altogether clear, but it is frequently associated with general enteroptosis, and undoubtedly developmental errors are the chief factors in its production. The failure of the large intestine to conform to environment and the secondary changes produced by habit, namely, atony, distension and catarrh are jumbled in an etiological mess."

Pilcher says: "As to the etiology of these films and bands, that view which considers them to be the result of long-continued or oft-repeated mild infections of the peritoneal covering of the cecum and appendix transmitted through the intestinal wall, seems to me most probable."

A. J. Ochsner believes that the cecum mobile and many other visceral ptoses are the result of faulty feeding of children.

M. L. Harris does not take much stock in Ochsner's theory, because the condition predominates in the female, and boys are illfared as much as girls. Harris says with reference to the whole subject that his mind is perhaps in as great a state of chaos as is the subject.

Treatment.—Having in view that the chief predisposing cause, if not the exciting cause, of these conditions, is the upright position of the human animal, as he walks and stands on his hind legs, the first thing which strikes the physician is the necessity for frequently changing this position. Gerster recommends for constipation a small dose of castor oil every morning before breakfast, and restriction in the meat diet.

Serious cases require surgical intervention, dividing constricting bands although they may reform, straightening of sharp angulations, perhaps elevating a fallen cecum or fixing an obviously too movable one or plicating a dilated one, largely symptomatic operations. In obstinate cases of sufficient gravity Lane's operation of ileo-sigmoidostomy, with or without removal of the colon, may be advisable.

One point the surgeon should remember in operating on cases for appendicitis, which may also have any one or more of these other conditions, is not to make too small an incision like the gridiron, but to make one which can be extended, if need be, to dimensions which will permit thorough examination. To Mr. Lane must be given the greatest credit as the pioneer in the evolution of these still confusing intraabdominal conditions.

REFERENCES.

- Lane, W. A., *The Operative Treatment of Chronic Constipation*, London, 1909.
 Jackson, J. N., *Surgery, Gynecology and Obstetrics*, Chicago, Sept., 1909.
 Lane, W. A., *Ibid.*, Feb., 1908; Nov., 1910, and March, 1911.
 Martin, F. H., *Ibid.*, Jan., 1911, and Sept., 1912.
 Mayo, C. H., *Ibid.*, March, 1911.
 Connell, F. G., *Ibid.*, Nov., 1911, and Sept., 1912.
 Blake, J. A., *Annals of Surgery*, lv, 767.
 Garster, A. G., *Ibid.*, liv, 325.
 Pilcher, L. S., *Ibid.*, lv, 1.

3: MEGACOLON.

By H. H. KERR, M. D., C. M.,

Washington, D. C.

Megacolon or Hirschsprung's disease is a congenital hypertrophy and dilatation of a segment of the alimentary canal. It has been reported as occurring in the esophagus, the duodenum, small bowel, appendix vermiformis, or colon. By far the largest number of cases have occurred in the colon, and the condition is usually called idiopathic dilatation of the colon.

The first cases were reported by Parry in 1825 and Billard in 1829. Hirschsprung, however, was the first to give us a complete description of the condition, in 1886, at the Berlin Congress for Children's Diseases. Since then upward of 250 communications have appeared on the subject.

The earlier writers differ widely as to the etiology. Numerous causes have been suggested; as abnormally long mesentery with torsion, Barth, 1870; chronic colitis, Walker and Griffith, 1893; spasm of the sphincter, Fenwick, 1900; neuropathic dilatation and hypertrophy above a paralyzed segment of bowel, Hawkins, 1907; lymphangiectasis as in macroglossia, Finney, 1908.

In some of the reported cases obstruction from tumors, valves, kinks, etc., has been found, but in the great majority no obstruction can be demonstrated.

There are many cases which prove it to be congenital in origin, as Hirschsprung suggested in his original contribution. Konjetzny reports cases in a fetus of seven months and a child three days old. On the other hand, many writers describe cases in the adult up to the age of 88. In these, however, as in my own case reported before this Society last April, there is obtained a history of obstinate constipation since childhood.

It is probable that all cases are congenital, though complications which precipitate acute obstructions may also be found.

Pathologically there is a true hypertrophy of the colon. There is increase in the length and diameter of the bowel with hypertrophy of the bowel wall. This hypertrophy affects all coats,

especially the muscular, and has been seen to reach the enormous thickening of 3.55 c.m., or $1\frac{3}{8}$ inches. The diameter of the affected gut may reach ten inches or more.

Puls, in an analysis of 104 cases, found that the sigmoid was the seat of disease in 84 per cent., the entire colon in 27 per cent. and the sigmoid alone in 35 per cent.

The diagnosis is usually easy in the child, not only from the physical signs, but from the history. The child is generally brought to the doctor because of obstinate constipation and progressive enlargement of the abdomen, which have existed since birth. As Stiles says, the constipation gradually gets worse and worse, and the abdomen gets bigger and bigger. The enlarged loop of bowel can be made out by physical examination, and sometimes the enormous masses of retained feces can be palpated. A skiagram after a bismuth enema will clinch the diagnosis. In the adult, where the enlargement is relatively not as great, periods of long and resistant constipation, interrupted by attacks of diarrhea occur. Gray reports a case without stool for three months.

The literature shows a gradual evolution in the treatment, and it may be said that all well marked cases should be surgical. A few of the milder cases have been reported as practically cured by regulation of the diet, massage of the abdomen, irrigation of the colon and the proper use of laxatives. Most of the cases, however, require some direct interference with the dilated colon. The figures given by Terry in 1911 show 74 per cent. recoveries and 26 per cent. deaths under surgical treatment, and 34 per cent. recoveries and 66 per cent. deaths under medical treatment.

The earlier writers advise colostomy above the dilatation. Although this procedure may be justifiable as an expedient in acute obstruction, few patients would tolerate it as a permanent proposition, unless all other means had failed to cure. Colopexy, or the suspension of the dilated sigmoid to the abdominal wall, has also been used, but the only value is to obviate a possible obstruction by kinking. Narrowing the lumen of the dilated bowel by longitudinal plication has been tried with varying success, and Terry, after trying it, says "it will not play any important part in the operative treatment of megacolon."

Exclusion operations, by side-tracking the affected bowel with ileo-sigmoidostomies or colo-colostomies, have been used successfully in a large number of cases; but, as with exclusion operations done for other conditions, they have been complicated by fecal impactions in the excluded bowel, often necessitating secondary resection or colostomy.

The ideal treatment is resection of the affected gut. It is a formidable procedure and is, I think, contra-indicated as a primary procedure when the case presents itself with an acute or subacute obstruction. Then an exclusion operation should be

done, and after two or three weeks the abdomen should be opened again and the diseased bowel resected. When the diagnosis is made early and the patient properly prepared for operation by colonic irrigations, etc., a primary resection may be done in ideal cases.

An interesting fact noted of the adult cases reported was the large number among the feeble minded or insane. Is it not possible that the continued auto-intoxication from retained feces since birth has had something to do with the mental defect?

4: X-RAY DIAGNOSIS OF ABNORMALITIES OF THE BOWEL.

BY THOS. A. GROOVER, M. D.,

Washington, D. C.

The x-ray examination of the alimentary tract consists in observing the passage of a bismuth meal through the canal, either as shown upon the fluorescent screen or as recorded on the photographic plate. The combined method is undoubtedly preferable, but owing to the danger to the operator the fluoroscope is not commonly used. Apparatus is being perfected, however, which it is believed will permit of its use in safety. The radiographic method of examination, which is the one commonly employed at present, necessitates the making of a number of plates at various stages in the transit of the bismuth meal.

By means of the x-ray we can determine the following facts concerning the alimentary canal: First, size; second, form; third, position; fourth, clearance; fifth, mobility. At first thought it might appear that this is claiming a great deal for the x-ray method of examination, and in a sense it is, but the difficulty is, not in establishing these facts but in determining their significance. The latter is the big problem which is gradually being solved by workers in this field. In so far as the anatomical and physiological factors above enumerated are disturbed in disease, just so far will the x-ray findings, when properly interpreted, be of value in its diagnosis.

All of these factors vary considerably within normal limits, and text-book descriptions cannot be applied too rigidly when we come to say what is normal and what is abnormal. Again, a given abnormality in one individual may cause no symptoms, whereas in another it may be the source of much distress. It is to be remembered, too, that nearly every disease of the abdominal cavity will affect one or more of these factors to a greater or less degree. It is well to have these general facts in mind before discussing the value of the x-ray in specific abnormalities of the bowel.

Ptosis of the stomach and intestine can be recognized more

readily by the x-ray than by any other method of examination. It will show whether the stomach alone is involved or whether the colon also is ptosed. Either may be ptosed independently of the other, but as a rule both take part in the process. Associated kinks can be recognized, and the rate of clearance determined. Delayed clearance may depend either upon atony or mechanical obstruction, either of which may be a factor in ptosis. It is not always possible by means of the x-ray alone to say which factor is operative in a given case, but in most cases it will afford a probable clue as to the cause of retention. Ptosis may be and often is associated with other diseases, and it should be remembered that retention may be due to tumors, bands of adhesions, or cicatricial contractions, and that the ptosis may be a matter of secondary importance. Too much reliance should not be placed upon the mere ptosis of the bowel as an explanation of a patient's symptoms, unless other causes can be satisfactorily excluded. It should also be remembered that the pyloric end of the stomach, and the entire colon may be well down in the pelvis without giving rise to any definite symptoms. Dilatations of the colon as found in Hirschsprung's disease can be readily recognized in the radiograph.

An x-ray examination will not infrequently give valuable information concerning diseases of the stomach and upper bowel. Hour-glass contraction of the stomach can be recognized by the x-ray, and in conjunction with the clinical evidence not infrequently determine its cause. Cancer may so deform the stomach wall as to be recognizable in the radiograph. The value of the x-ray in the diagnosis of diseases in the vicinity of the pylorus depends mainly upon determining the degree of retention of the stomach contents, and deformities, the result of adhesions. The patency of the pylorus can be determined to a certain extent by giving various sized capsules containing bismuth, and observing the largest one that will pass. Normally the pylorus is placed about opposite the lower border of the first lumbar vertebra slightly to the right of the median line. It is freely movable and its position changes with the posture of the patient, and degree of distention of the stomach. The radiograph will show the position of the pylorus, and with proper technique it can be determined whether or not the pylorus is fixed. If it is fixed, and especially if in abnormal position, it is good evidence of some pathological process in this region. Fixation of the pylorus is usually due to adhesions, but of course the causes of adhesions in this region are manifold, and cannot always be determined by the x-ray or any other means. Adhesions in this region are a common cause of the so-called pyloric or duodenal kink. The use of the x-ray has given a great impetus to the surgical treatment of these kinks, both in the vicinity of the pylorus and also of the colon. It is my personal belief that a good deal of unwarranted

surgery is being done for these conditions, and that much more is likely to come, because of faulty deductions from radiographs. It is rather the exception to find a gastro-intestinal tract that is absolutely normal from a radiographic standpoint, and slight deviations should not be made an excuse for surgical interference. The x-ray should be used to amplify, but should not supersede other means of diagnosis. When so used it will often supply the missing premise of a diagnostic syllogism, and will doubtless become of greater importance in the examination of the alimentary canal, as our study of the subject increases.

Dr. James F. Mitchell said that the papers contained so much that was interesting and instructive it seemed a pity to let them go undiscussed; but the whole subject had been covered so thoroughly by the papers that little remained to be added and nothing to be disputed. Dr. W. P. Carr's paper on pyloric obstruction had interested Dr. Mitchell, particularly on account of several cases he had met with in his own practice; two such cases in infants he had reported to this Society. He was glad to report that both these infants did well and are now healthy children.

The whole subject embraced in the papers reduces itself practically to one point, viz: there is present a surgical condition demanding operative intervention. The exact diagnosis had better be left until after operation, because as often as not we are mistaken when we make the diagnosis upon clinical evidence alone. On this account, he agreed heartily with Dr. Vaughan in his advocacy of large incisions. Illustrative of this uncertainty of diagnosis, Dr. Mitchell cited two cases: 1, a patient with the typical picture of duodenal ulcer, upon operation was found to have a normal stomach and duodenum, but was suffering with chronic appendicitis; 2, a patient with all the signs of gall stones, including jaundice, right rectus spasm, etc., when operated upon was found to have a normal gallbladder but had a duodenal ulcer, which had perforated, the perforation being closed by the gallbladder.

As had been emphasized by Dr. Carr, pain in intestinal diseases is an untrustworthy symptom, because the intestinal tract is devoid of the pain sense; when, therefore, pain accompanies intestinal disease it is due to invasion of the parietal peritoneum or to tugs upon the parietes; thus pain is always associated with distention and with infiltration of glands in the pain area. This explains the referred pains of gallbladder disease, felt in the right shoulder; also, the epigastric pain of appendicitis.

Dr. Mitchell desired to urge the surgical treatment of duodenal ulcer; especially as it has been pointed out that 70 per cent. of gastric cancers arise from old ulcers.

He wished that Dr. Vaughan had spoken upon the subject of adhesion and kinks following appendicitis and appendix operations. This subject is a rich field for discussion.

Megalocolon did not seem to Dr. Mitchell to be a simple matter, as some writers would appear to indicate. His own experience with these cases had been that after a given procedure had been employed for relief he usually wished that some other plan had been tried. He cited a case in point.

He had enjoyed Dr. Magruder's paper very much, but was of the opinion that the criticism of the general practitioner contained therein was somewhat too severe.

Dr. A. B. Hooe said that the radiographs exhibited by Dr. Groover recalled his own college days, when Professor Prentiss had advised the students when in doubt to play trumps, and trumps was calomel. He thought some of the cases illustrated by the x-ray pictures would do very well under calomel treatment. He was reminded, also, of the advice of Professor Johnston, that the proper understanding of a case depends upon having a complete history; and therefore he wished that Dr. Adams had given a history of the last case cited by Dr. Groover. Dr. Hooe was glad to know that Dr. Groover was doing the character of work illustrated by the pictures. Dr. Hooe had been interested in the past summer in examining plates of the same character, which had been taken in connection with Dr. Lane's work in England. Dr. Hooe emphasized the importance of taking such pictures with the patient in various attitudes, there being the chance that the weight of the bismuth might influence the position of the bowel with the patient in the upright position. He was inclined to go a little further than Dr. Mitchell in deprecating Dr. Magruder's criticism of the internists for delaying the surgical treatment of cancer; many cases of cancer never consult a physician at all until after an operation has become hopeless.

As to Hirshsprung's disease, Dr. Hooe believed that many of these cases in the adult are due to neglect of the bowel function, and they should for a long time have the benefit of medical care before surgical intervention is undertaken. Many such cases, he felt convinced, are traceable to the use of patented and advertised purgative drugs.

Dr. S. S. Adams said that the girl, whose case had been mentioned by Dr. Groover, had been brought to him for treatment of an obscure condition which occasioned periodical attacks of intestinal toxemia. These attacks supervened after a period of good health during which the bowels moved regularly; they were ushered in by an inability to empty the bowels at all, and soon there followed fever and the usual accompanying symptoms; bowel washing in such attacks brought large quantities of undigested food. For these attacks she had often been given calomel, many physicians having played the trump suggested by Dr. Hooe, and she had been carefully dieted; in Dr. Adams' opinion she had been overdieted, and seemed to be in need of plenty of wholesome food. The case suggested to him Hirschsprung's dis-

ease, and the child's mother said that some physician in Boston had made the same diagnosis tentatively; for this reason Dr. Adams had the radiographs made. Operative intervention had been thought of, but he wished to make a diagnosis before suggesting it, and hoped to see the child in an attack. Meanwhile, however, the patient was taken to Hot Springs, Va., and while there had an attack. The physician at the Springs informed him that in seeking to irrigate the bowel he had injected six quarts of water before he got a return. As to the effect of the weight of bismuth in distorting the true picture in such cases, the pictures in his case had been taken with the patient in the recumbent posture, and therefore a picture of a factitious ptosis would have been avoided.

Dr. Frankland said that in the very interesting picture of a child's colon Dr. Groover had called attention to the fact that the bismuth milk given by enema had found its way into the ileum. The statement has been made that the ileocecal valve is impermeable reversely; but Dr. Frankland thought that in one of his own cases he had detected symptoms which indicated that fluid did pass from the colon into the ileum, and recently had observed a statement by a French physician to the effect that after the injection of a liter and a half into the colon the fluid passed into the ileum. For these reasons the plate in question was of particular interest and should serve to disprove entirely the idea that the ileocecal valve is impermeable reversely.

Dr. W. P. Carr said that the Chairman of the Essay Committee had asked him to get up the symposium, and he had chosen the subject because it is a live one and because he meets with so many chronic sufferers with vague abdominal disorder, which he feels sure may be accounted for by partial intestinal obstruction of one form or another and which may be cured by operation.

There is nothing more valuable in the elucidation of this subject than the use of the x-ray plates; it is a better way of observing events and conditions within the abdomen than by exploration, because by taking a series of plates we can trace the shape and position of the intestinal tube from the stomach down, and at the same time can observe the rate of intestinal circulation.

Dr. Vaughan said that the subject was such a large one that the difficulty of selecting a point for entering upon the discussion was very great. He sympathized with Dr. Mitchell's wish that his (Dr. Vaughan's) own paper might have dealt with adhesions and bands of the common variety; he liked to discuss that form of abdominal trouble because he knows more about it. He had selected Lane's kink, Jackson's membrane, and *cecum mobile* for the subject-matter of his paper because little is known about these conditions and it seemed important to bring them into prominence. Commenting upon Dr. Mitchell's remark about the

relation of duodenal ulcer to cancer, Dr. Vaughan said that in Rochester, at the Mayo clinic, they say that the duodenal ulcer almost never becomes cancerous ; it is the pyloric ulcer that is so prone to undergo malignant change. He was pleased to learn, because it confirmed his own views, that they hold at Rochester that whenever cancer of the stomach is operated upon it is inoperable. The meaning of this is that cancer of the stomach should be operated upon when it is only suspected ; when it is diagnosable it is inoperable. He felt that the defense of the general practitioner by several of the speakers was hardly necessary ; there are good general practitioners who need no defense ; and there are poor ones who deserve such criticism as they get.

Dr. E. P. Magruder would yield place to no one in respect and admiration for the practitioner of internal medicine. He was aware, also, of that class of cancer victims who do not consult the internist, and of that class of cancer patients who deliberately refuse to follow the internist's advice ; but he had no regrets for his remarks in so far as they applied to those physicians who recognize or suspect the cancerous nature of a malady and who withhold advice of immediate surgical intervention.

Dr. Groover said that it was formerly held that the peristaltic waves in the colon were only toward the anus ; but radiography has shown that these waves are to and fro, and that with an insufficiency of the ileocecal valve the contents of the cecum may regurgitate into the ileum. Thus it is possible that in Dr. Adams' case, whenever large colon flushings were given, the water found its way up into the small intestine, accounting for the large volume that was given at Hot Springs, and for the presence of quantities of undigested food in the wash water.

PELLAGRA; A FOOD POISONING, ATTRIBUTED TO THE USE OF INDIAN CORN.*

By P. S. Roy, M. D.,

Washington, D. C.

The case that I present to the Society tonight I saw October 1, 1912, with Dr. Stephen Harnsberger, of Catlett, Va., who had made a correct diagnosis. Dr. Joseph Goldberger, of the Public Health Service, confirmed our diagnosis.

Previous history negative except that the patient, a man about 55 years old, had suffered with dyspepsia for three years, and had lived almost entirely on eggs and milk during that time. He said that he had not often eaten cornbread. About July 1, 1912, he began to feel very tired and suffered with insomnia. In a short time diarrhea set in and continued for more than a month.

* Reported to the Medical Society, October 16, 1912.

About September 1st, an erythema showed itself, on the back of the hands, and a wide erythema collar appeared around the neck; two of the early seats of erythema in pellagra. Dr. Goldberger and myself thought that there was marked mental change in the patient. He seemed to us very stupid, but Dr. Harnsberger, who had known him for some years, thought that he was about normal, as he always had had a very slow and hesitating speech. I still believe that this must have been increased. Dr. Harnsberger did not see the patient until the middle of September. The erythema had been diagnosed as eczema before Dr. Harnsberger saw him.

As pellagra is becoming more common, I felt that it would be well to present this case to the Society in order to keep in our minds the diagnostic symptoms. The first stage of pellagra presents gastro-intestinal symptoms and great muscular weakness; the two most marked intestinal symptoms are diarrhea and a cardinal tongue. The mental changes that occur in a large majority of the cases can also be observed in the first stage; the two most common are insomnia and despondency. At the same time there is great muscular weakness, and in a certain per cent. of cases, exaggerated patellar reflexes. In the second stage of the disease the erythema becomes more general, attacking other parts of the body, often the feet. The diarrhea generally subsides, constipation sometimes follows, and the mental symptoms become more marked; also the motor changes. During this time there is generally no fever. Blood examinations are practically negative except leukopenia. The second stage is really an exaggeration of the first. The third stage of the disease is rather one of cachexia, the patient rapidly failing in health, and unless responding to treatment, either becomes insane or in the course of a year death ensues.

Pellagra has many points of great interest. The disease almost disappears in the Winter, to recur again with great violence in the Spring, or it may not recur again until the following Fall. The prognosis is grave; 25 per cent. of the cases in this country have died. The disease in Italy seems to go hand in hand with poverty, but in America it has occurred many times in the well-to-do. The question whether the disease can be diagnosed without the erythema I think is still a matter of doubt. The gastro-intestinal and nervous symptoms are rarely sufficient to make a positive diagnosis.

The treatment so far has been dietetic and hygienic; all food containing cornmeal is excluded, the patient, if possible, is removed to a higher altitude, rest is very important, and a medical treatment of arsenic in some form is given. It has been stated that the static current has greatly hastened a cure in these cases. Salt baths are sometimes beneficial.

Dr. Goldberger, U. S. Public Health Service, had seen the case, at the invitation of Dr. Roy, about a week ago; the patient presented a perfectly typical picture of early pellagra. The gastrointestinal, the cutaneous and the mental symptoms were definitely present. There was evidently, this evening, a very great improvement in the general and mental condition; whether this resulted from treatment, or whether it was an expression of the natural history of the disease could not be said. Dr. Goldberger had been informed that the only treatment had been a change in the man's dietary.

Dr. Williams regretted that he had not earlier heard of the great efficacy of static electricity in pellagra; with this agency might he not have saved the life of a girl he had seen in Harrisonburg? He had recently seen another case, in Cumberland, in which the diagnosis was very difficult, in that there were no cutaneous evidences of the disease, and no confusional symptoms. She was brought to him as an ataxic, but there was no true ataxia; the gait was very feeble and the reflexes were absent. The symptoms were due probably partly to peripheral neuritis and partly to cord changes. There was marked glossitis, and this had been a more prominent symptom, so that a diagnosis of syphilis had been made. These cases of pellagra are only to be suspected until pathognomonic symptoms appear.

Dr. Harnsberger said that his patient was the fifth victim of pellagra that had been recognized in his neighborhood; two of these cases had been typical, that of the case here shown and one other. The other cases were recognized only by a bright cherry redness of the gums. The other typical case was in a negro man whose only reason for seeking professional advice was a very black discoloration of the dorsum of his already black feet; in the black negro the dermatitis manifests itself in this way. The patient exhibited by Dr. Roy had been injured some years before and afterwards became dyspeptic; he had got hold of a book on diet, and had cut his dietary down until he lived on milk and eggs. When Dr. Harnsberger recognized the present condition as being due to pellagra his only treatment had been to direct the consumption of a full, varied diet.

Dr. Roy said that the only treatment administered to the man since his coming to Washington consisted of an arsenic preparation and generous diet.

AUTO INTOXICATION.—Doctor: You are suffering with auto-intoxication!

She: Why, Doctor! I never was intoxicated in an auto in all my life.

A CONTRIBUTION TO THE STUDY OF THE CONNECTION OF THE SEXUAL APPARATUS WITH THE EAR, NOSE AND THROAT.—ABSTRACT.*

BY VIRGINIUS DABNEY, M. D.,

Washington, D. C.

The proposition, so well advanced by Mackenzie in 1884, and subsequently elaborated by him and others, that there was a definite physiological connection between the nose, throat and ear and the sexual apparatus, was felt to be axiomatic by the fathers of medicine, and even the lay observers in the old days. Thus we find abnormalities chiefly in the nose, but in the ear and throat as well, due to vicious practices of a sexual nature. The use of the olfactory sense in the lower animals in determining the receptive attitude of the female needs but passing mention in suggestion of the rôle played by this part of the nose in the animal kingdom.

From the normal or physiological view the following peculiar cases are to be met: In the case of women whose noses are normal, satisfactory organs in other respects, at the time of the catamenial flow the turbinates become swollen, at times to the extent of exciting the reflexes of sneezing and coughing (Joal, Mackenzie), and this periodic irritability may persist during pregnancy and even lactation (Fliess). Moreover, those areas in the nose, called by Fliess for obvious reasons "genital zones," which Mackenzie noted years ago as especially sensitive and peculiar, have been cauterized in pregnant women, only to result in speedy abortion. Similarly, in certain cases of "nasal dysmenorrhea" cocainization of these same zones has removed the pain and other unpleasant features of that state. Brettauer states that operative correction of some nasal abnormalities cures some dysmenorrheas. Epistaxis is occasionally encountered in boys at the approach of puberty, and redness of the nose was a very well marked sign in one of my patients each month after he had reached puberty. I have had under observation an epileptic in whom the height of sexual orgasm produced severe respiratory spasm and a seizure.

The engorgement of the turbinates and of that part of the erectile septum, with or without the copious discharge of mucus, presenting a perfect picture of the so-called "hay fever" attack, epistaxis, sneezing, coughing and the asthmatic seizures, are all characteristic of both the physiological type of these aberrations and, under undue excitation of the sexual apparatus, may become also pathological by prolonging the effects, and leaving behind a permanent result instead of allowing the tissues to return to normal.

* Read before the Medical Society, October 23, 1912.

Case 1.—Woman, 25 years old, stoppage of nose, and asthma; found to be preventing conception. When pregnant all symptoms disappeared, only to reappear on tight "lacing." Phenomena all occurred again two years later under similar circumstances.

Case 2.—Man of 34 had nasal stoppage at night if lying on back (pressure on base of bladder and seminal vesicles); also, if impacted feces offered resistance in extrusion (pressure on prostate).

Case 3.—Man of 28, who had been libidinous for years, showed enormous tumefaction of turbinates.

Case 4.—Vicarious menstruation in nose, at least attempted discharge, shown by great swelling of all nasal mucosa and structures at time of catamenial period.

Case 5.—Nasal blocking, tinnitus aurium and slight deafness, due to complete tear of pregnancy and delayed and faulty repair, causing prolapse.

Case 6.—Girl of 16; earache, throatache, tinnitus aurium and deafness, without any organic lesion, in week following menses, covering period of observation of a year.

Case 7.—Tinnitus aurium and slight deafness at menses. Amenorrhea and prolapse.

Case 8.—Epistaxis from onanism.

REFERENCES.

- Arviset, Thèse de Lyon, Aout, 1887.
 Isch-Wall, Progrès Medical, Sept., 1887.
 Joal, *Revue Mensuelle de Laryngol., d'Otol. et de Rhinol.*, Fev. et Mars, 1888.
 Mackenzie, *American Journal Med. Sciences*, April, 1887.
 Bulletin Johns Hopkins Hospital, Jan., 1898.
Journal Laryng., Rhinol. and Otol., Jan., 1898.
 Brettauer, *American Journal of Obstetrics*, 1911, p. 215.
 Peyer, *Münchener Med. Wchsht.*, Jahrgang, 1889, No. 4.
 Endriss, Inaug. Diss., Würzburg, 1892.
 Fliess, Die Beziehungen zwischen Nase u. weiblichen Geschlechtsorganen, Berlin, 1897.
 Rolfinc, Jenae, 1664, part I, cap. vii.
 Aristotle, De animal. historia, lib. vii, cap. I.
 De animal. generatione, lib. v, cap. I.
 Lusitanus, Curationum Med: Cent. iv, cu. 4, Venet., 1557.
 Bonet, Sepulchretum, L. i, s. xx.
 Bartholini, Historiarum Anat. et Med. rario., cent. v et vi, ed. Hafniae, 1761, v, p. 184.
 Vanderwiel, Gynaecolog. hist.-medico, 1730, p. 429.
 Fellows, *Homeopathic Eye, Ear and Throat Journal*, 1906, xii, p. 194.
 Toussaint, G. Thèse de Paris, 1911.
 Scott, I. M., *Woman's Med. Journal*, July, 1911.

Dr. Masterson had been much interested in the paper. He did not know whether the case he was about to relate had any bearing upon the subject, or whether it was one of the coincidences that so often confuse clinical observation, but he would present it for

what it was worth. He had been treating for a number of weeks a female child, five years old, for gonorrheal vaginitis; the treatment consisted of irrigations with permanganate solution. The disease persisted. Meanwhile, the child developed faucial diphtheria and was given antidiphtheric antitoxin; the vaginitis entirely cleared up along with the throat trouble.

ACID NITRATE OF MERCURY IN DERMATOLOGICAL SURGERY.*

BY H. H. HAZEN, M. D.,

Washington, D. C.

For a number of years Dr. Sherwell, of Brooklyn, has been advocating through curettage and cauterization with the acid nitrate of mercury as a radical cure for superficial growths, either benign or malignant. Inasmuch as his method is not widely known to the profession and inasmuch as the results are extremely good, it seems wise to again call attention to his operation.

The acid nitrate of mercury or the *Liquor Hydrargyri Nitratis* of the *Pharmacopoeia* is made by dissolving forty grams of the red oxide of mercury in forty-five grams chemically pure nitric acid and fifteen grams distilled water.

The method is applicable to epithelioma, rodent ulcer, sarcoma, endothelioma, moles, warts and certain chronic infections, such as lupus vulgaris. Growths of the eyelid can be treated with very good results. It is possible to benefit, if not cure, rodent ulcers of very considerable size. In my judgment this method should not be used in epithelioma of the lip; these cases demand removal of the lymphatic glands.

Either local or general anesthesia may be used. In small superficial growths thorough infiltration with a one-half of one per cent. solution of cocaine will amply suffice. Personally I always boil my solution of cocaine just before use; in spite of many statements to the contrary, this does not cause the drug to lose its analgesic powers. If the growth to be removed be about the face it is better to give a preliminary injection of morphine and atropine so as to lessen the secretions.

The apparatus needed is simple: two or three curettes of various sizes, at least one of which must be very sharp, a scalpel in case hard fibrous tissue is encountered, forceps, clamps, and

* Read before the Medical Society, October 30, 1912.

especially a good actual cautery with which to stop bleeding, comprise the instruments. Three glass vessels should be provided, in one of which the acid nitrate is placed, another contains powdered bicarbonate of soda, and the third contains a solution of the bicarbonate of soda. In operations around the face the last mentioned is indispensable for the protection of the eyes or for neutralizing any acid that may have entered any of the various openings. There should be plenty of cotton swabs.

The operation is straight forward: once the patient is anesthetized all diseased tissue is rapidly and thoroughly curetted away, the small curette being necessary to reach into the various ramifications of the growth. The sense of touch will tell when one is dealing with sound or diseased tissue. All diseased tissue must be removed, one must not consider what the scar formation will be. The permanent removal of a malignant growth is much more important than speculation as to the cosmetic result. Curettage being completed, the bleeding is stopped by pressure or by using the actual cautery at dull red heat; then the acid applied with a cotton swab; this is allowed to act for fifteen or twenty minutes, several applications being necessary. Dr. Sherwell considers that the acid has a specific action upon neoplastic tissue, but it seems to me that it is simply a powerful and deeply acting caustic, which may be very readily controlled. The soda is applied with a gauze sponge until it has formed a crust over the entire area that has been cauterized. In cases of congenital moles it is best to first blister the skin with carbon-dioxide snow or cantharides, and then apply the acid, neutralizing as has been described.

The after treatment consists in keeping the lesion dry; the thick, black crust that forms after neutralization is a sufficient protection for the wound. Dr. Sherwell considers that in epithelioma, and especially sarcoma, it is wise to administer Fowler's solution, alternating it with Donovan's solution, for several months. There is always considerable oedema and inflammation following the operation, but this will take care of itself very nicely.

The results, both immediate and permanent, are excellent. The scar is soft and white, and in cosmetic results only to be approached by the x-ray scar; the scar from carbon-dioxide snow is more noticeable, at least in my hands. Dr. Sherwell reports that he has had about ten per cent. of recurrences, most of which have been cured at the second operation.

CASE REPORTS.

Case 1.—G. P., white, male, aged 60, had a growth on the left labio-nasal fold that began twenty-four years ago. It was at first treated on the expectant plan, with the usual result in epithelioma. Later it was treated with caustics, and still later with the x-ray and radium. For the last three years it has been steadily en-

larging and ulcerating until at the present time the entire nose is affected, over two-thirds of it being gone. The growth extended up to the left eyelid, and to within one centimeter of the vermilion surface of the upper lip. Biopsy showed a typical basal-celled epithelioma. On account of the size of the lesion the patient was sent to consult Dr. Sherwell, who reported that he had never operated on so extensive a lesion, but that in view of the hopelessness of any other form of treatment, and of the recent rapid spread, he should consider operation advisable.

December 1, 1911, with the assistance of Dr. Balloch, under general anesthesia, all the diseased tissue was curetted away, and the wound cauterized. The results were remarkable. Within six weeks the wound had entirely healed, and the patient felt much better than he had for years.

Three times there have been local recurrences, necessitating smaller operations—February 8, 1912; May 10, 1912, and September 24, 1912. However, there has been no general return of the trouble; all recurrences have been small and easily dealt with. The eye has been saved and, although the lip has been drawn up considerably, it can be easily repaired by a plastic operation. All who have seen the case, including the patient, consider the results wonderful.

Case 2.—H. B., referred by Dr. Balloch; white, male, aged 47, had an epithelioma arising from the hair follicles on right side of scalp, starting nineteen months ago, directly following an injury. Was first seen March 14, 1911. September 6th it was noted that there were two ulcers along the anterior margin of the growth. All the rest was healed as the result of x-ray. October 27th, as these ulcers still persisted in spite of very thorough radiation, both ulcers were thoroughly cauterized with the acid; no anesthetic was employed. The ulcers at once healed and up to the present time have not reappeared.

Case 3.—M. C., white girl of 14, referred by Dr. Griffith, for a large congenital mole of chin. This was removed January 7, 1911, with carbon-dioxide snow. May 21, 1912, it was noted that part of the mole had reappeared and that the central portion of the scar protruded. The skin was blistered, and the acid used; a much better scar has resulted, and so far the mole has not reappeared.

Case 4.—Warts of finger; referred by Dr. Dunlop; had recurred despite two removals. Removed March 18, 1912, by curetting and applying the acid. No recurrence.

Case 5.—Wart of sole of foot; referred by Dr. Dunlop; removed as in above case March 18, 1912. No recurrence.

Case 6.—Lymphangio-endothelioma of back of ear (diagnosis by Dr. Welch of Johns Hopkins), referred by Dr. Paul Johnson; about the size of a pea; present two months. February 8,

1912, the lesion was excised and cauterized, and has not returned.

Case 7.—In June, 1912, Dr. Erving referred to me a young man who had just returned from Yucatan with a curious chronic infection, about 2 cm. in diameter, upon his arm. Although no animal or vegetable parasite could be demonstrated, it was felt best to curette and cauterize. There has been no return.

Case 8.—Dr. Balloch and I operated upon a very large epithelioma, about 10 cm. in diameter, upon the leg of colored woman, May 28, 1912. This epithelioma had its origin in an old varicose ulcer, and there seemed to be no alternative save amputation. At the present time the wound has almost finished healing, and there has been no recurrence.

Case 9.—Lupus of the nose; referred by Dr. Pusey, of Chicago. Most of the bridge of the nose was covered with superficial ulcerations. The usual operation was done October 22, 1912, and I have just heard that the wound is healing well.

Of course it is entirely too early to say whether or not the malignant cases have been permanently cured, but if we can draw any deductions from the results of Dr. Sherwell and others, some at least should remain well. The first case that I have reported above has at least been wonderfully benefited.

Dr. Balloch was much interested in the treatment of epithelioma with the chemical agent under discussion. The first case mentioned by Dr. Hazen was that of a personal and professional friend. He had without avail tried arsenic paste and other drugs topically applied; he had been subjected to x-ray treatment and had been exposed to the emanations of radium, but with failure in every instance. The epithelioma had steadily advanced until it was considered inoperable. Dr. Sherwell himself considered it inoperable, and believed that the application of the acid nitrate of mercury was rather barbarous. But this agent did check the progress of the growth, and there is now healthy new tissue in the scar. Whether the epithelioma will recur or not remains to be seen.

The second case reported by Dr. Hazen had been referred by Balloch. The epithelioma followed an injury to the scalp of a man nearly bald headed; there had been a large lesion which healed under x-ray treatment, except a stubborn remnant which was cured by the application of acid nitrate of mercury.

The third case, that of the negro man with epithelioma of the leg, had been submitted to the acid nitrate treatment, because otherwise the condition would have demanded amputation. Thanks to the mercury preparation, this man still has a useful leg.

Dr. Balloch was inclined to regard the acid nitrate of mercury as the best treatment for epithelioma, next to operation.

Dr. C. A. Simpson said that anyone who has ever read the *Journal of Cutaneous Diseases* has heard of Dr. Sherwell's method; he has been reporting cases treated with acid nitrate of mercury for thirty-five years. With Dr. Sherwell it is a hobby, just as Dr. Bulkley insists on the merits of thorium paste; others prefer trichloroacetic acid, and others employ carbon-dioxid snow. Many dermatologists still prefer arsenic paste for the treatment of epithelioma; this agent has a certain selective action which is a distinct advantage.

Dr. Abbe had seen Dr. Hazen employ acid nitrate of mercury in the first case of the kind in Washington; had been much pleased with the result and had himself used the remedy in several cases. Of course, he did not believe it to be the only remedy for epithelioma, nor did he suppose that Dr. Hazen entertained any such idea. The x-ray treatment does effect healing in many cases; but when a lesion remains refractory then the acid nitrate of mercury answers very well.

Dr. Barton asked whether Dr. Hazen attributed the effects of acid nitrate of mercury to the nitric acid ion or to the mercury ion. Dr. Barton understood that the compound contains about 11 per cent. of free nitric acid, and in view of this rather large percentage of such an active corrosive it seemed interesting and important to know which radicle of the compound had the therapeutic effect. His interest in the matter was purely academic; the results of the drug in Dr. Hazen's hands prove it to be of value, whichever ingredient is responsible for these results. Dr. Barton, of course, knew that nitric acid has been for many years employed for the same purpose.

Dr. Hazen was much interested in Dr. Barton's remarks, but was unable to say what portion of the compound was the active agent. Dr. Hazen had used nitric acid alone, but he did not think that it penetrated as deeply as the acid nitrate of mercury. Dr. Balloch had said that the preferable treatment in all cases of epithelioma is excision, including the associated glands; of course, Dr. Hazen agreed, in the main, with this opinion, but such radical procedure is not necessary in some cases of rodent ulcer.

As to Bulkley's use of thoradin paste, it would appear that this paste has been pretty thoroughly discredited. It might be added that Sherwell has followed his cases much longer than has Bulkley the cases treated with thoradin paste.

The action of acid nitrate of mercury can be readily controlled, because it acts under the eye of the operator and a neutralizing agent is always at hand.

THE BEGINNER.—Mrs. Wise: "Did Mrs. Smith's son graduate as an allopath or a homeopath?"

Mrs. Cutting: "Homeopath, I think. He's been living at home ever since he took his degree."

CARCINOMA OF STOMACH.*

BY D. S. LAMB, A. M., M. D.,

Washington, D. C.

Dr. Lamb showed two specimens of carcinoma of the stomach.

1st. Carcinoma of Stomach, confirmed by microscopical examination.—The specimen was a carcinomatous ulcer, the disease infiltrating the muscular coat; removed by operation in 1912. The history was as follows: The patient was 49 years old; his family history was negative so far as concerned cancer. He had had stomach trouble for twenty years, more especially since 1901. Had constant pain in abdomen, worse after taking food, but also felt it when the stomach was empty. It was felt to the right of the midline. There was some tenderness on pressure, but a tumor could not be felt. His pain was referred to the right scapular region. Usually he vomited about 15 minutes after eating, and vomited regularly after every meal. He ate very little, though hungry. There was no hemorrhage from the stomach, but he vomited black matter and passed tarry stools. During the year 1911 he became worse, lost 10 to 12 pounds in weight. Said to have been jaundiced. On the 5th of December, 1911, the vermiform appendix was removed. Sometime afterwards, about March, 1912, the operation was done at which this specimen was removed. At that time he was fairly well nourished, weighed 145 pounds. There was but little epigastric tenderness and no tumor could be felt. At the operation the liver was examined, but seemed to be normal.

It was now about six months after the operation; he had gained 35 lbs., digested his food well, felt comfortable, and there was no sign of recurrence of the disease. The part of the stomach from which the specimen was removed was not stated.

2d. Carcinoma of stomach confirmed by microscopical examination.—A pyloric cancer, extending four inches towards the cardia; the muscular coat was much hypertrophied; mucous membrane somewhat ulcerated. The only history was that the man was 57 years old, and died of right lobar pneumonia. There were no secondary carcinomatous foci. At the autopsy, the stomach was found filled with coffee-colored liquid, so that in all probability the man had vomited similar liquid.

This specimen was interesting because it showed so typically how a cancer of the pylorus will extend for inches along the wall of the stomach and yet at the same time entirely ignore the duodenum. To show the rarity with which the duodenum is involved I would refer to the paper by Perry and Shaw in Guy's

* Reported to the Medical Society, October 23, 1912.

Hospital Reports for 1904 (vol. LVIII, pages 121 to 362), covering over 200 pages. They report an analysis of 306 cases of malignant disease of the stomach, in a series of 21,260 autopsies; a proportion of 14 in 1,000. In these 306 cases the duodenum was involved six times; in one case it was invaded, the report does not state how far; in a second case, to the extent of $\frac{1}{4}$ inch; in a third case, $\frac{1}{2}$ inch; in a fourth, a minute nodule extended into the duodenum; in a fifth, three minute nodules infiltrated the duodenum; in the sixth, the disease extended into the duodenum so that the pylorus could not be identified.

Cancer of the duodenum occurs in the proportion of 1 to 25 of cancer of stomach.

I may add the following statements in regard to the specimens of cancer of stomach in the Army Medical Museum, Washington.

There are in the Army Medical Museum 60 specimens of carcinoma of stomach. Of these, 28 involve the pylorus; 13 the body of the organ, usually one of the curvatures, but not involving the orifices; and 7 the cardiac end. In 6 cases the entire organ was involved, shrunk to a small, hard mass. In 5 cases, portions removed by operation, it is uncertain what part was involved, and the history fails to state.

In one case, in which the cardiac end was involved, the disease extended into the adjoining part of the oesophagus. But in no case of pyloric involvement, did the disease extend into the duodenum; in other words it stopped abruptly at the pylorus.

In quite a number of cases there is an ulcer, sometimes quite large, and which may be considered as carcinomatous.

In the cases in which mention of secondary foci is made, 18 showed the liver involved, the peritoneum and omentum each 4, pancreas 3, lung, spleen, small intestine, and transverse colon each 2, and mesentery, kidney, adrenals, uterus, and pelvic organs each 1.

In 3 cases not included in the 60 mentioned, the disease began in the peritoneum, and thence involved the hollow organs.

In 3 other cases not included in the 60, there was sarcoma. One of these involved the cardiac area; the other two, the body of the organ. In one case the liver is said to have been secondarily involved; in a second case, the lung, spleen and kidney.

Incidentally it may be mentioned that there are in the Museum 7 specimens of carcinoma of the oesophagus.

There are also 30 specimens of carcinoma of the intestine, not including the peritoneal cases just mentioned. There are also 5 specimens of sarcoma, and 7 of benign tumors of the intestine. In two cases the duodenum showed carcinoma; in one, the first part of the duodenum was affected; in the other, the second part; no other tumors in either case mentioned.

Dr. Macatee said the history of the case reported by Dr. Lamb made an exception to the rule as formulated at the Mayo clinic, viz: that whenever cancer of the stomach after diagnosis is operated upon it is inoperable. This rule was quoted by Dr. Vaughan in his discussion in the symposium on intestinal obstruction several weeks ago.

RELATIONS OF THE VASCULAR SYSTEM TO CERTAIN OCULAR DISEASES.*

BY WILLIAM HOLLAND WILMER, M. D.,

Washington, D. C.

The title of this paper opens up such a vast field, that I can, in the limits of a brief paper, touch only in the most cursory manner upon a few interesting points in a few ocular diseases.

The plasma of the blood is the great carrier of the elements of nutrition to the various tissues, but it is also the transporter of the secretions of various organs and of harmful substances, such as the products of waste, and of micro-organisms and their toxins. The blood supply of the eye is very liberal, especially to the uveal tract. Therefore, the eye is prone to suffer from diseases of other organs, and from various micro-organisms and toxins circulating in the blood stream.

One layer of the choroid, the membrane of Bruch, is impervious to a certain extent, allowing the passage of toxins but neither cells nor bacteria. The hyaloid membrane of the vitreous is protective, also, though to a less degree than Bruch's membrane. These tissues save the interior of the eye somewhat, except in very prolonged and violent inflammations of the uveal tract.

In general arterio-sclerosis, there is, in the eye, a local sclerosis of vessels similar to that found in other parts of the body. However, here very slight changes may give rise to very grave disturbances of function. The local effect of this condition has been well described by many observers. Briefly, the narrowing of the blood vessels gives rise to diminished nutrition. The vessels become hard (sometimes entirely obliterated), tortuous, hemorrhages occur in the retina (followed by glaucoma), cataract ensues, etc. There is, also, very often a sclerosis of the choroidal vessels, giving rise to the so-called Tay's choroiditis.

In albuminuric retinitis, there is no doubt that the pathological changes in the nerve and retina are, to some extent, mechanical, due to increased cerebral pressure, but there is, in addition, at

* Read before the Medical Society, October 23, 1912.

times a true vessel sclerosis. These two conditions give rise to the retinal picture as seen in Bright's. The retina is oedematous, the exudate albuminous, coagulating into white plaques which are seen in many forms, varying from small radiating ones in a star-like figure around the macular region, to the larger exudates similar to "snow banks," as described by Parsons. These conditions are frequently associated with hemorrhages of varying size. The very acute cases occurring in febrile diseases, pregnancy, etc., in which the sight is impaired, are due, according to Collins and Mayou, to toxins and not to vessel sclerosis. In uremia, there is sometimes a transient amblyopia (lasting usually from a few hours to a few days) without a recognizable fundus lesion. This is probably due to a direct toxic effect upon the cerebral centers.

Diabetic retinitis and diabetic amblyopia occur more frequently, I think, than is recognized to be the case by most writers. The former condition often passes unnoticed because the fundus lesion is at times very slight and often the associated cataract interferes with a good view of the fundus; the latter condition (amblyopia), presenting no lesion recognizable by the ophthalmoscope, is naturally overlooked if the sight is only a trifle impaired. The retinal changes in diabetes are usually due to vessel sclerosis, the white patches are smaller than those of albuminuric origin. The hemorrhages, too, which are usually due to the giving way of capillaries in the deeper portions of the retina are smaller than those seen in albuminuric retinitis. The rather obscure cases of diabetic amblyopia, without recognizable anatomical changes in the retina, are probably due to an unknown toxin acting directly upon the ganglionic cells of the retina and, later, upon the papillo-macular fibers of the optic nerve.

Tobacco amblyopia is probably due to some toxin, not yet recognized, but derived from nicotine and acting upon the retinal cells. This toxin has a selective action upon the cones which are present at the fovea without the rods. According to Fuchs, the macular region has the most delicate anatomical structure of any tissue of the eye, hence most vulnerable. In the cases of habitual users of alcohol in excess, sclerosis of surrounding vessels impairs still further the nutrition of the retinal cells, thus rendering them more subject to any toxin circulating in the blood.

Various other poisons circulate in the blood causing amblyopia, such as methyl- and ethyl-alcohol, iodoform, quinine, salicylic acid, etc. These poisons act in different ways; ergot, etc., by causing retinal ischemia. Some poisons, like lead, affect the eye secondarily through the kidneys. Other medicines, like salicylic acid, affect the sight, in all probability, by a direct action upon the cerebral centers.

Hemorrhages into the vitreous may occur from the ciliary body, choroid or, more commonly, from the retinal vessels. Hemorrhages of the vitreous occurring in young persons, usually men from 18 to 24 years of age, are often of very obscure origin. Weeks says they are often preceded by epistaxis, and are associated with constipation, irregularity of circulation, and gout. Fuchs says they are associated with anemia. According to Collins and Mayou, this condition is sometimes due to increased coagulability of the blood, which causes a small thrombosis to occur in a minute vessel, which later gives way, owing to the *vis a tergo*. Such cases, however, have never come under my personal observation. In my personal experience, in these cases, the coagulation time has been either slightly or markedly delayed. These cases are probably of toxic origin, the sources of infection varying. To illustrate, I have recently seen a case occurring in both eyes of a young man of 22 years of age. There was a marked local and general positive tubercular reaction. At the onset of the trouble, albumen and casts were found in the urine. This condition cleared up with a resultant retinitis proliferans, but the general condition vastly improved. In addition to other treatment, tuberculin was used therapeutically. In another recent case, in a young man age 24, the right eye alone was involved. In the other eye, the retinal vessels were engorged and there was a mild retinal oedema. This patient gave a history of intestinal disturbance and marked constipation. He also had a pyorrhea alveolaris of several years' standing. Cultures from the tonsillar and pharyngeal region were negative. Tubercular tests were repeated several times, but were always negative. In the first case, the infection seems to have been tubercular. In the second case, the infection seems to have been intestinal, with the pyorrhea in addition. The intestinal tract now seems to be normal, general health perfect, with great gain in weight, and the sight is normal.

Uveitis, not due to traumatism and external infection is usually caused by some toxic material in the blood. The type and severity of the inflammation depend upon the character of the bacteria, their number, their actual presence in the tissue, and the resisting power of the tissues.

Suppurative diseases in other parts of the body may cause non-suppurative inflammations in the eye, because the bacteria lose something of their virulence in the serum and because the number finding a habitat in the uveal tract are not sufficient to produce a true suppuration in such a vascular tissue. To illustrate the apparent causes of uveal inflammation, I will give briefly the histories of five cases of uveitis now under observation.

Mrs. S., age 48, mother of six children, was first seen in the fall of 1909 with a typical uveitis of both eyes. Family history:

Mother had tuberculosis; otherwise negative. Personal history: Always healthy until 1905, when she began to have vague symptoms which she classified as rheumatic and intestinal. Appetite fair, tongue thinly coated, dry and patchy. No nausea, vomiting or jaundice. Wassermann and gynecological examination, negative. No cultures were taken from her throat or pharynx, as neither history nor inspection seemed to call for it. I am indebted to Dr. Clark for the following physical examination: Excessive flatus; marked pyrosis before meals; marked general meteorism, especially over sigmoid and descending colon. Heart sounds, clear and distinct; pulse 108, small, regular and normal; blood pressure 160; hæmoglobin, 82 per cent; leucocytes, 9,800; urine, specific gravity, 1,014; indican, slight excess; albumen, trace; hyaline casts, a few; stools, reddish brown; mucus, excessive; no occult blood. Under general treatment and local treatment for the uveitis, she has markedly improved, but there is impaired vision of both eyes.

Miss M. came to office April 16, 1910, with a mild uveitis of left eye. Family history, negative. In childhood she was delicate, but grew up to be healthy. When 19 she had a severe attack of mumps which was followed by a severe gastric attack; for a week could not even retain water. Has never been well since that time, being thin, weak and anemic. Four years before, she had grippe, two years later malaria; appetite variable; troubled at night with pyrosis; couldn't take milk; chronic constipation; flatulence; slight headache and dizziness. Heart, normal; blood pressure, 120; hemoglobin, 74 per cent.; lungs normal; abdomen, spare; recti, relaxed; right kidney, palpable to third degree; left kidney palpable to second degree; localized meteorism over sigmoid, and ascending colon. Test meal; excess of mucus, free acid 40, with total acidity of 50. Teeth, good; nose, throat and genito-urinary tract, negative. Tuberculin test, negative; Wassermann, negative. This attack lasted for about one year, during which time the patient was treated locally for uveitis as well as generally for the intestinal disturbance. Her general health improved immensely with great gain in weight and the vision improved from 5/200 to 20/20. During this period the tonometer varied from 14½ to 33.

Mrs. H., age 25, mother of one child. Came to office May 2, 1912, with uveitis of left eye. Family history, negative. Personal history, perfect health with the exception of marked constipation. No other constitutional cause for the condition could be found. Wassermann, negative. At first visit sight was 10/200; on September 16th, it was 20/40. Under local treatment to the eye, careful regimen and mild saline, the vision is gradually clearing up.

Mrs. O., age 37, was first seen October 17, 1911, suffering with

uveitis of left eye. Has had an almost perfect health history, with the exception of certain symptoms of indigestion, just prior to the attack. All examinations (Wassermann, tuberculin, tonsils, throat), proved to be negative. Previous to her trouble about two years ago, she suffered from sepsis following confinement. The etiological factor in this case seems to be an auto-intoxication, following confinement, as every other source of infection can seemingly be eliminated. The inflammation has so far only involved one eye, which has quieted down with permanently impaired vision. During the attack the tonometer varied from 35 to 20.

The fifth case occurred in a man of 70 years of age. A cataract had been successfully extracted from his only eye years ago. He had a moderate case of arterio-sclerosis with the usual kidney and heart symptoms. He also had some vague intestinal symptoms. He reported in the fall of 1911, complaining of a gradual decline in sight for several months with a rapid falling off three weeks before visit to the office. There was a mild uveitis with the ocular tension reduced to 12 (tonometer). An exudation had closed up the original free opening in the capsule. The eye quieted down under treatment and a free decission was made in the capsule. There was no reaction following the needling, but several weeks later there were decided inflammatory symptoms. Before the needling, the patient brought a good report concerning his teeth from his own dentist. However, with this return of the uveitis, I asked him to consult the dental surgeon, Dr. Davis, who reported a bad case of pyorrhea alveolaris. Under his care, the pus disappeared so completely that we found at the end of two weeks it was impossible to get enough secretion to make a culture. With the improvement of the pyorrhea, there was a simultaneous improvement of the eye and the general health.

Three of the five cases of uveitis now under consideration, seem to be due to infection from the intestinal tract. In addition to direct infection from the intestines by micro-organisms or their toxins, it seems possible that the chemical poisons that occur in the so-called cases of disordered metabolism may cause the milder forms of uveal inflammation. These eye inflammations are very analogous to the joint inflammations, so well described by Dr. Goldthwaite of Boston.

In view of the toxic origin of these cases, the indication for treatment would seem to be to get rid of the cause, build up the patient's resistance, prepare, when possible, a vaccine for injection, hot applications and the careful use of atropine and, later dionin. Iridectomy should be advised with great care, because the sudden lowering of the intraocular tension causes a tendency to a sudden exudation from the vessels. This exudation may

contain micro-organisms themselves or their toxins. This added to the traumatism from the operation, is sufficient to start up a fresh uveal inflammation.

Spirochaeta pallida have been found in every tissue of the eye except the lens, hence the large number of ocular diseases due to syphilis. Tuberculosis also gives rise to many ocular inflammations.

The few cases that I have mentioned will illustrate the common interests existing between the general physician and the various specialists. It has been well said that blood is life and any modification of it will mean symptoms. The blood is not only the great carrier of nutrient material, but it is a sewer. All branches of medicine must be deeply interested in the increased knowledge of the normal blood and its modifications.

Dr. McKimmie said that the paper dealt with a subject of extreme interest; the conditions spoken of had been so well treated by the essayist that little remained to be said. Dr. McKimmie wished to make a few remarks on diagnosis, inasmuch as many of these conditions can easily be recognized by anyone familiar with the use of the ophthalmoscope. Some constitutional disorders may thus be recognized before other clinical manifestations appear. Very often where an artery crosses a vein in the retina, the vein may seem to disappear beyond the artery, thus indicating clearly changes in the arterial wall sufficient to constrict the underlying vein and cause the appearance just described. Much has been said as to the points of differentiation between the exudates in diabetes and other kidney diseases affecting the eye; he felt that he would not undertake to differentiate between them on the basis of retinal inspection alone.

Dr. O. Wilkinson desired to call attention to the importance of estimating the blood pressure in cases of retinal hemorrhage; he had never seen a case of this sort unaccompanied by rise in blood pressure.

Dr. S. B. Muncaster had been much interested in the paper, especially in the remarks upon vascular diseases. The progress of cataracts, as well as of glaucoma, is much hastened by the concurrence of vascular disease, thus indicating the importance of taking heed to the state of blood pressure in these diseases.

Dr. Dufour said that Dr. Wilmer had hit the nail on the head in saying that the conditions treated of in the paper may be due to primary faults of the blood or of the vessels, or of both together. In retinitis pigmentosa the thickening is situated in the external coat; in albuminuric retinitis the internal coat is affected. The etiology of retinal hemorrhage in young men is very obscure, and rest seems to be the only treatment of importance. Hemorrhagic glaucoma is a most interesting condition. The accepted

opinion at this time is that it is not best to do iridectomy ; the sudden decrease of intraocular tension may cause additional hemorrhage. In two cases now under treatment, Dr. Dufour was employing the usual medicinal means together with paracentesis of the aqueous humor.

Dr. H. P. Parker had been struck forcibly by the remarks on the constitutional causes of uveitis. The observations made upon this subject are of the utmost importance, and they serve to indicate to the general practitioner the relation of general internal causes, such as chronic or latent infectious processes, to uveitis, just as Goldthwaite and others have pointed out to internists the relations of the same general class of conditions to chronic joint disturbances, and just as we are beginning to recognize the relation of the same group of conditions to chronic endocardial disease.

Dr. Wilmer thanked the members for their remarks in discussion of his paper. Whatever may be said of the hypotheses underlying much that he had said concerning the causes of uveitis, it is certain that certain colon bacteria have the power experimentally of producing uveitis. As to retinal hemorrhages in young persons, these cases are very important to the general practitioner ; they are very sad cases, and the responsibility in handling them is very great. What may be the sources of the infections responsible for these accidents? One case in his practice was found to be tuberculous : there was great improvement under appropriate treatment. Another case was due to a chronic intestinal affection ; here, again, great improvement followed treatment of the intestinal condition.

In Memoriam.

DOCTOR DANIEL BAEN STREET.

WHEREAS, The Medical Society of the District of Columbia has received with profound sorrow intelligence of the death of Doctor Daniel Baen Street, who for thirty-eight years has practiced his profession in this city ; therefore be it

Resolved, That the Medical Society sincerely regrets the death of our associate, a skillful physician, a valuable citizen, a courteous, high-toned gentleman, in every way worthy of the respect and esteem of the Medical Profession and the Community.

Resolved, That this testimonial of regard for the memory of Dr. Street be inscribed upon the records of the Society and a copy transmitted to the family of our deceased brother.

(Signed) THOMAS C. SMITH, M. D.,
PHILIP S. ROY,
D. OLIN LEECH,

Committee.

The foregoing preamble and resolutions were reported to the Medical Society of the District of Columbia at a meeting held October 2, 1912, and were unanimously adopted.

DR. HENRY JOHNS RHETT.

On October 7, 1912, the Society lost an honored member, Dr. Henry Johns Rhett, who died at Newport, R. I.

Dr. Rhett was born October 10, 1863, at Newport, R. I. He was graduated from Brown University with the degree of B. A. in 1885. He studied medicine at the University of Pennsylvania, from which he received the Doctor of Medicine degree in 1890. At the Presbyterian Hospital in Philadelphia he was an interne. After leaving the institution he practiced his profession in Philadelphia, Jamestown, R. I., and this city. In 1899 he was Acting Superintendent of Columbia Hospital for Women.

Resolved, That through the death of Dr. Henry Johns Rhett the Society has lost an honored member, and those who came under his care, a conscientious physician and a trusted friend.

Resolved, That the Society make this report a part of its minutes and that the Secretary be instructed to transmit a copy to his bereaved family, with expressions of regret we feel at his death.

Respectfully submitted,

(Signed) D. W. PRENTISS, Chairman,
ROBERT S. BEALE,
B. L. HARDIN,

Committee.

The foregoing preamble and resolutions were reported to the Medical Society of the District of Columbia at a meeting held October 9, 1912, and were unanimously adopted.

DR. HENRY BUCKMASTER DEALE.

TO THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA :

The committee appointed to draw up resolutions on the death of Dr. Deale, after expressing their appreciation of the courtesy extended them by your President, desire to present the following sketch of our beloved member's life and to add thereto a short personal appreciation of his character.

Dr. Henry Buckmaster Deale was born in Hereford, Baltimore

County, Maryland, April 16, 1862, and died suddenly of angina pectoris at his residence on Jefferson Street, June 19, 1912. He was the youngest son of Rev. John Summerfield Deale and Sarah Deale. At the age of 14 he came to Washington, his father being assigned to the Waugh Chapel by the Baltimore Conference of the Methodist Episcopal Church. His first years here were spent in study at the preparatory school of the old Columbian University. After completing that course he went to Dickinson College, where he graduated in arts in 1882 and received the Master's degree in 1885. He returned to Washington, matriculated in the Medical Department of the Columbian University and obtained his diploma after the usual course of study.

While he was studying medicine he had charge of the Abbott School, one of the high-grade schools of the District. After graduating he entered the Garfield Hospital as interne, and some years later he realized his ambition by being appointed a member of the visiting staff. He was one of the first members of the reorganized Clinico-pathological Society, and his interest in the Society and his friendship for its members was maintained up to the time of his death. The funeral services were conducted in Baltimore at the home of his brother, and, notwithstanding the interference with professional duties, a large number of his medical friends showed their respect by their attendance.

Dr. Deale possessed a strong personality. He was positive in his opinions and frank in his expression of them. He was courtly and dignified in manner, warm in his affections, a good friend and a pleasant companion. One trait which stood out prominently was his keen sense of humor, and he was always ready to take up the foils for the thrust and parry of good-natured repartee.

He was devoted to his family, which consisted of a brother and two sisters, and in his will he made specific provisions for their future needs. He was highly respected by his fellow physicians and was frequently called in consultation. He held his professional work in very great regard and was devoted to and loved by his patients. We feel that in the death of Dr. Deale the Medical Society has sustained a heavy loss, and it is the suggestion of your committee that this report be recorded in the minutes and a copy be forwarded to his family.

(Signed)

CHARLES W. RICHARDSON,
M. F. CUTHBERT,
A. L. STAVELY, *Chairman*.

The foregoing report was presented to the Medical Society of the District of Columbia and, with its recommendations, was unanimously adopted at a meeting held October 23, 1912.

PROCEEDINGS OF THE MEDICAL SOCIETY OF THE
DISTRICT OF COLUMBIA.

Wednesday, October 2, 1912.—Dr. J. B. Nichols, the President, presided ; about 65 members present.

The Treasurer presented his report for the months of June to October ; receipts, \$503.14 ; expenditures, 302.08.

A letter from the National Committee of the World's Permanent Exposition at Washington, inviting the appointment of a committee from the Society to coöperate with the National Committee, was referred to the Executive Committee of the Society.

An appropriation of \$25.75 was made for printing 750 copies of the roster of members.

The President announced the deaths of the following members and appointed memorial committees :

Dr. M. B. Strickler ; Committee, Drs. Brumbaugh, N. F. Graham and Davidson.

Dr. H. B. Deale ; Committee, Drs. Stavely, C. W. Richardson and Cuthbert.

Dr. D. B. Street ; Committee, Drs. T. C. Smith, Roy and D. O. Leech.

Dr. John Kurtz ; Committee, Drs. Snyder, Mackall and Wood.

Dr. Smith reported resolutions of respect to the memory of Dr. Street, which were unanimously adopted. See page 259.

Dr. L. M. Hynson presented a patient showing enormous abdominal distention from constipation ; possibly a case of Hirschsprung's disease.

The patient was a white boy 16 years old. Dr. Hynson had been called to see the patient only the evening previous to the meeting and thought it would be of interest to show the appearance of the greatly distended abdomen before the picture had been changed by treatment. The boy's bowels had not moved for three weeks ; he gave the history of frequent periods of constipation, with two or three attacks somewhat similar to that from which he now suffers.

Dr. Balloch said that the appearance of the patient's abdomen suggested a megalocolon, or Hirschsprung's disease. Many of these cases have been cured by surgical measures. If medical treatment should prove insufficient to relieve the condition entirely a cure ought to follow intestinal anastomosis, with the colon sidetracked. The case was of great interest, and Dr. Hynson's enterprise in bringing the patient to the attention of the Society merited appreciation.

Dr. A. F. A. King asked if Dr. Hynson had made a digital examination of the rectum to ascertain if there was any obstruction to account for the constipation. The fact that there had

been no bowel movement for three weeks was unusual but not unique; there are cases on record of absence of any bowel movement for three months and longer. Dr. King recalled the case of an army officer who had failed to defecate for three months, and whose rectum was found, upon examination, to be filled with material which had become crystalline, and which had to be removed by hammer and chisel.

Dr. T. C. Smith suggested that Dr. Hynson be requested to report this case later, with complete history of treatment and outcome. It was of unusual interest.

Dr. Hynson thanked the speakers for their remarks and said that he would act upon the suggestion made by Dr. Smith.

Dr. D. S. Lamb presented a specimen of extensive laceration of the hand from premature explosion of a shell. A soldier was inserting a shell in a "sunset" gun when the shell exploded and lacerated his forearm and hand; there was some shock. Chloroform was given and the injured part amputated.

Dr. E. F. King said that the specimen reminded him of three cases that he had seen in Hawaii. The natives amuse themselves while playing on the sea beach by lighting the fuse to sticks of giant powder and throwing the sticks out to explode upon the reef; if they do not throw the sticks quickly enough, the resulting injury resembles the specimen shown by Dr. Lamb.

Wednesday, October 9.—The President, Dr. Nichols, presided; about 100 members present.

An anonymous letter asking the aid of the Society in establishing a public gymnasium for women, and letters from Drs. J. Lester Brooks, R. A. Pyles, R. S. Ingersoll and J. L. Dulaney concerning dues to the Society were referred to the Executive Committee for consideration.

The Chair announced the death of Dr. Henry Johns Rhett, and the appointment of a committee on memorial consisting of Drs. D. W. Prentiss, R. S. Beale and B. L. Hardin.

Dr. Prentiss, for the committee, presented memorial resolutions in honor of Dr. Rhett, which were unanimously adopted. See page 260.

Dr. Stromberger introduced Dr. Franklin P. Davis, of New York, who read a paper on Oxygen therapy, and thereafter demonstrated an apparatus for the generation of nascent oxygen. Dr. Davis was thanked for demonstrating the apparatus.

The program for the evening being a symposium upon Intestinal obstruction—

Dr. W. P. Carr read a paper on Pyloric stenosis;

Dr. Vaughan spoke upon Obstruction due to Lane's Kink, to Jackson's Membrane and to Cecum Mobile;

Dr. H. H. Kerr spoke upon Megalocolon;

Dr. E. P. Magruder's paper dealt with Obstruction caused by neoplasms of the gastro-intestinal tract;

Dr. Groover spoke upon X-Ray examination of the intestinal tract, his remarks being illustrated with radiographs.

Discussed by Drs. J. F. Mitchell, A. B. Hooe, Frankland, W. P. Carr, Vaughan, E. P. Magruder and Groover. See p. 227.

Wednesday, October 16.—The President, Dr. Nichols, presided; about 95 members present.

The Corresponding Secretary presented a letter from the Director of Boys' Work of the Y. M. C. A., requesting an invitation to Dr. Winfield S. Hall, of Chicago, to address the Society, Nov. 13, upon some subject relating to instruction in sex hygiene. Referred to the Executive Committee.

Dr. Tom A. Williams informally reported upon the work of the Committee on Public Instruction in Medical Matters during the summer recess and during the Congress of Hygiene and Demography. See p. 271.

The resignations from active membership of Drs. E. L. Tompkins and S. E. Moore were accepted.

On motion of Dr. Franzoni the Executive Committee was instructed to take under advisement the professional status of physicians who after resigning from the Society continue to practice in the city.

Dr. Roy exhibited a patient suffering with pellagra, and gave a history of the case. Discussed by Drs. Goldberger, Harnsberger, Williams and Roy. See p. 241.

Dr. Wilmer read the essay for the evening, the meeting being held under the auspices of the Section on Ophthalmology, Otology, Rhinology and Laryngology. Dr. Hammett, Chairman of the Section, presided jointly with President Nichols.

Dr. Wilmer's essay was upon The relation of the eye to certain Vascular Diseases. Discussed by Drs. McKimmie, S. B. Muncaster, Dufour, H. P. Parker and Wilmer. See p. 253.

Dr. A. B. Bennett read a paper entitled: The prognostic value of the Rinne-Webber-Schwaback tests. Discussed by Drs. Wells, McKimmie, O. Wilkinson, Williams and Bennett.

Wednesday, October 23.—The President, Dr. Nichols, presided; about 70 members present.

Dr. Stavely, from the Committee, presented a biographical sketch of and resolutions on the death of Dr. H. B. Deale, which were unanimously adopted. See p. 260.

A letter from the *Washington Herald*, asking for notices of the meetings with the view of reporting the proceedings, was referred to the Executive Committee.

Dr. D. S. Lamb reported the following cases and presented the specimens: 1. A case of carcinoma of lung; 2. Carcinomatous ulcer of stomach; 3. Typical carcinoma of stomach. Discussed by Dr. Macatee. In the case of the lung the character of the

tumors was confirmed by microscopical examination. The specimen was removed after death. There was no history. See p. 251.

Dr. Dabney read a paper; subject: A contribution to the study of the connection of the sexual apparatus with the ear, nose and throat. Discussed by Dr. Masterson. See p. 244.

Wednesday, October 30.—The President, Dr. Nichols, presided; about 90 members present.

Dr. Karpeles reported a case of Iodine dermatitis. Discussed by Drs. I. S. Stone, Balloch and Karpeles.

Dr. C. A. Simpson reported a case of Xeroderma pigmentosum, and presented the patient. Discussed by Drs. Hazen, Abbe, Brown and Simpson.

Dr. Moulden read a paper; subject: Fecal stasis. Discussed by Drs. Carr, A. B. Hooe, Bishop, Williams, Prentiss and Moulden.

Dr. Hazen also read a paper on Acid nitrate of mercury in dermatological surgery. Discussed by Drs. Balloch, Simpson, Abbe, Barton and Hazen. See p. 246.

WASHINGTON MEDICAL ANNALS.

Journal of the Medical Society of the District of Columbia.

Published Bimonthly by the Society, at No. 2114 Eighteenth Street, N. W., Washington, D. C. Subscription price, including postage, \$1.00 per year, in advance. Single copies, 20 cents. Advertising rates given on application.

COMMITTEE ON PUBLICATION.

D. S. LAMB, A. M., M. D., *Chairman and Editor*, 2114 Eighteenth St., N. W.

Associate Editors.

B. G. POOL, M. D.,	945 Rhode Island Avenue, N. W.
H. H. DONNALLY, M. D., A. M., B. S.,	1612 I Street, N. W.
TRUMAN ABBE, A. B., M. D.,	Stoneleigh Court.
W. W. WILKINSON, M. D.,	The Rochambeau.

Editorial.

HISTORY OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.—This book should be in the hands of every member of the Medical Society. The price is only \$1.00, with 25 cents added if delivered in this city or sent by mail. Address Dr. C. W. Franzoni, 605 I Street, N. W. The books are in the custody of Dr. D. S. Lamb, at the Army Medical Museum.

VOLUME II.—On recommendation of the Executive Committee the Society, Feb. 14, 1912, ordered that the numbering of the volumes of the ANNALS should coincide with the calendar year. Accordingly this November number completes Volume XI.

THE OTHER MEDICAL SOCIETIES OF THE DISTRICT OF COLUMBIA.

MEDICAL AND SURGICAL SOCIETY of the District of Columbia.—The annual meeting was held at the office of Dr. H. G. Fuller, The Farragut, Oct. 3, 1912. The following officers were elected for the ensuing year; President, H. P. Parker; Vice President, D. P. Hickling; Secretary and Treasurer, L. Eliot; Recording Secretary, L. C. Ecker; Executive Council, A. R. Shands, O. A. M. McKimmie, L. Eliot, E. P. Copeland and L. H. Reichelderfer. At the October meeting Dr. Nevitt read the address of the retiring President; subject, Suicide, and Dr. Atkinson read a paper on Alcohol. The program for the season is as follows:

<i>Date.</i>	<i>Place of Meeting.</i>	<i>Case History.</i>	<i>Essay.</i>
Dec. 5, 1912.....	Dr. Hagner	Dr. Carr.....	Dr. J. D. Morgan
Jan. 2, 1913....	" Bishop.....	" Copeland	" H. P. Parker
Feb. 6.....	" McKimmie.....	" Gwynn	" Reichelderfer
Mar. 6.....	" J. D. Morgan.....	" Hickling.....	" Shands
Apr. 3.....	" Nevitt	" Ecker	" Walsh
May 1.....	" Parker	" Sowers.....	" Atkinson

THE WOMEN'S MEDICAL SOCIETY of the District of Columbia held its first regular meeting of the season at the residence of Dr. Bordeau-Sisco, Takoma Park, October 8, 1912, the Society having been the guests at dinner of the Washington Sanitarium Association. Dr. Elora Pollock, of Baltimore, Md., delivered a most interesting address upon "The protection of children from venereal infections." She is making an exhaustive study of this serious question from both medical and legal standpoints, having carefully examined the police records of several cities and found such crimes increasing in number. The November meeting will be at the office of Dr. Elizabeth Sohon. The officers of the Society are as follows: President, Mary Parsons; Vice President, Ida J. Heiberger; Recording Secretary and Treasurer, Ada R. Thomas; Corresponding Secretary, L. Tayler-Jones.

GALEN SOCIETY of the District of Columbia, 1912-1913; R. Lee Spire, President; Wm. H. Littlepage, Secretary-Treasurer:

<i>1912</i>	<i>Place of Meeting.</i>	<i>Essayist.</i>
Nov. 18.	C. A. Pfender, 304 R. I. Ave.....	H. J. Bryson: Burns.
Dec. 16.	Carl Henning, The Rochambeau..	W. D. Tewksbury: Report of cases and prognosis in pulmonary tuberculosis.
<i>1913.</i>		
Jan. 20.	C. S. White and E. W. Titus, 911 16th Street.	Lewis H. Taylor: The use of vaccines and sera in surgery.
Feb. 17.	Charles Wheatley and W. H. Littlepage, University Club.	Charles S. White: Present status of bone surgery.
Mar. 17.	L. H. Reichelderfer, 1721 Conn. Ave.	Harry A. Ong: The treatment of cerebrospinal meningitis.
April 21.	W. D. Tewksbury, 4200 Ga. Av...	Charles Wheatley: Rheumatism in children.
May 19.	Joseph B. Bogan, 606 Mass. Av...	David W. Tastet: Infant feeding.
Oct. 20.	David W. Tastet, 2827 11th St....	Election of Officers: Miscellaneous business.

THE MEDICAL HISTORY CLUB OF WASHINGTON.—Officers ; C. W. Richardson, President ; B. M. Randolph, Vice President ; H. W. Lawson, Secretary.

THE HIPPOCRATES SOCIETY meets on the second Thursday in each month from October to May. Membership limited to 25. Officers : T. S. D. Grasty, President ; W. G. Young, Vice President ; L. M. Hynson, Secretary-Treasurer.

SOCIETY OF OPHTHALMOLOGISTS AND OTOLOGISTS of Washington.—R. S. Lamb, President ; J. J. Richardson, Vice President ; A. B. Bennett, Jr., Secretary-Treasurer. Meets on the third Friday in each month from October to May, inclusive.

CLINICAL SOCIETY OF WASHINGTON.—Composed of 25 active members besides retired members. Officers : C. M. Hammett, President ; T. A. Groover, Vice President ; W. E. Clark, Secretary-Treasurer ; L. A. Johnson and J. D. Thomas, Censors.

Nov. 11. A. B. Hooe, essayist ; at Sothoron Key's. Discussion led by L. H. Reichelderfer.

Dec. 9. F. L. Biscoe, essayist ; at J. D. Thomas'. Discussion led by Monte Griffith.

CLINICO-PATHOLOGICAL SOCIETY.—Active membership limited to 25. Inactive membership : those who have withdrawn from active membership for 15 years. A limited honorary membership of distinguished medical men. Meets on first and third Tuesdays from October to May, inclusive. Officers : W. G. Morgan, President ; Sothoron Key and E. E. Morse, Vice Presidents ; B. M. Randolph, Secretary and Treasurer. Program for 1912 :

<i>Date.</i>	<i>Place of Meeting.</i>	<i>Essayist.</i>	<i>To open Discussion.</i>
Nov. 19.	Dr. Hagner, 1824 19th St.....	Dr. Parker.....	Dr. Dunlop
Dec. 3.	" Key, 1716 H Street	" Kerr.....	" Miller
Dec. 17.	" Kerr, 1742 N Street... ..	" Morse.....	" Parker

GEORGETOWN CLINICAL SOCIETY.—Twenty active members ; limited to graduates of the Medical Department of Georgetown University. Meets at University Club, second Tuesday in the month. R. A. Hamilton, President ; J. J. Mundell, Vice President ; J. R. Verbrycke, Jr., Secretary-Treasurer.

THERAPEUTIC SOCIETY of the District of Columbia.—Meets at the G. W. School of Pharmacy, 808 I St., N. W., on the first Saturday in each month. L. H. Taylor, President ; S. R. Karpeles, Secretary.

Program for 1912 : December 7.—Smoker at University Club ; President's address.

THE SECRETARIES of the other Medical Societies of this District are reminded that the ANNALS will publish the schedules of their meetings.

NEW AND NONOFFICIAL REMEDIES. Price, cloth, \$0.50; paper, \$0.25; pp., 298. Chicago: AMERICAN MEDICAL ASSOCIATION, 1912.—This book contains descriptions of and a statement of the actions and uses of all articles which have been examined and accepted by the Council on Pharmacy and Chemistry prior to Jan. 1, 1912. The work of the Council during its seven years of existence and the reports of the Propaganda Department of *The Journal A. M. A.* have convinced the physician that in the prescribing of proprietary remedies he must be careful in his selection of those which he directs for his patients. Nowhere else can the physician or the pharmacist turn for reliable, unbiased information concerning the new remedies. This book enables the physician to make such selection and the careful pharmacist to know the character of the remedies he dispenses.

MEMBERS OF THE SOCIETY who favor the Owen bill, and it is to be supposed that all the members do favor it, would do well to say as much to the members of the Senate and House of Representatives whom they personally know.

THE NINTH INTERNATIONAL CONGRESS OF ZOÖLOGY will meet at Monaco, March 25 to 30, 1913, under the Presidency of H. S. H. Prince Albert 1st. The Secretary is Prof. Joubin, Institut Oceanographique, 195 Rue Saint-Jacques, Paris.

WE ARE REQUESTED TO PUBLISH the following:—"The 14th annual session of the National Medical Association was held at Tuskegee Institute, August 27-8-9, 1912. This, in many respects, was the most remarkable session which the Association has ever held. Effort had been made to reach the country people, who stood so much in need of hygienic and sanitary advice, and to have them present where conference was held with them for their special benefit, to the great advantage of both physicians and people. In connection with the meeting a very interesting clinic was held, where 523 patients were treated, 24 of whom received surgical operations, the large majority of which were majors, and at this writing, 22 days afterwards, we are pleased to announce that every patient has practically recovered."

THE PUBLIC INSTRUCTION COMMITTEE desires the coöperation of other members of the Medical Society. Those who feel that they have something important to say that could be embodied in the articles appearing in the Sunday papers, are requested to write it out in a form that will suit the public understanding and send to some member of the committee, of which Dr. T. A. Williams is chairman. The following subjects particularly require consideration:

1. Dirt and disease.
2. Insanitary houses and disease.
3. Dangers of certain occupations.

4. The defense against bacteria.
5. Facts about foods.
6. Uses of exercise.
7. Exercise for women.
8. Physical hygiene for girls.
9. Evils of self drugging.
10. Constipation.
11. Summer complaint.
12. What to guard against in summer.
13. What to guard against in winter.
14. The increase of pneumonia.
15. The cause and prevention of colds.
16. Medical inspection of schools.
17. Medical frauds.
18. The bone setter.
19. The electrician.
20. The psychic fraud.
21. Lies about lost virility.
22. The district nurse and her function.
23. How to feed the baby.
24. Hygiene for children in summer.
25. Mind and body.

TYPHOID FEVER VACCINES.—"About six years ago the undersigned began to use vaccines in the treatment of typhoid fever. Since that time he has thus treated more than one hundred cases and has obtained numerous articles upon the same subject written by physicians in various parts of the world. It seems possible, however, that some may have escaped notice. He also realizes that many of the profession may have treated some cases without reporting them. A paper upon the subject is now in the course of preparation. In this it is earnestly desired to incorporate reports from a large number of cases, good, bad and otherwise. He accordingly makes the following request to the readers of this journal :

"Will anyone who has used vaccines in the treatment of typhoid fever, whether but one case or more, kindly communicate to him that fact accompanied by name and address of the reporter. If the results have already been reported, a note of the journal in which they appeared will be sufficient. If they have not been reported, a short blank form will be sent to the physician to be filled out. Due credit will be given in the article to each person making a report. If any physician happens to know of other confreres who have any such cases, it will be appreciated if he sends their names, as they may not happen to read this note. It is hoped that by this means a sufficient number of cases may be collected to somewhat definitely settle the now mooted question whether vaccines are or are not of benefit in typhoid therapy.

"Reports of cases will be accepted at any time in the future, but preferably by November or December of the present year.

"Kindly communicate with Dr. W. H. Watters, Director of the Department of Pathology and Bacteriology, Evans Institute for Clinical Research, Boston, Mass."

TUBERCULOSIS.—A paper by Dr. J. W. Pettit, of Ottawa, Ill., read at the Conference on Education, Legislation and Public Health, in Chicago in February, 1912, and which outlines a uniform program for local and State organizations in the campaign against tuberculosis, has been published, and is available to any committee that is engaged in such a campaign. Address the *Journal A. M. A.*

THE WASHINGTON MEDICAL ANNALS.—Back numbers.—Members of the Society who have back numbers of the ANNALS, and do not intend to preserve them, are requested to send them to the Chairman of the Publication Committee. Requests for such numbers are frequently received. Address Dr. D. S. Lamb, Army Medical Museum.

THE FOLLOWING PUBLICATIONS of the A. M. A. have been received: The Post Graduate Study Course, 76 pages; The Annual Conference on Legislation. These pamphlets are on file with the Chairman of the Publication Committee.

COMMISSION FOR THE STUDY AND PREVENTION OF MALARIA.—One of the most important acts of the Southern Medical Association at the Hattiesburg meeting last November was the creation of this Commission. It is composed of nine members, appointed by the President of the Association, Dr. J. M. Jackson, of Miami, Fla. They are as follows:

Dr. Charles F. Craig, U. S. Army, Washington, D. C., Chairman.

Dr. Graham E. Henson, Crescent City, Fla., Secretary.

Dr. R. H. von Ezdorf, United States Public Health Service, Mobile, Ala.

Dr. William Krauss, Memphis, Tenn.

Dr. Creighton Wellman, New Orleans, La.

Dr. William H. Deaderick, Marianna, Ark.

Dr. W. S. Thayer, Baltimore, Md.

Dr. Seale Harris, Mobile, Ala.

Dr. C. C. Bass, New Orleans, La.

The gentlemen composing the commission are widely known for their interest in the subject and their efficient researches into the problems presented by malaria. The work already achieved by some members of the commission has won the attention and admiration of scientific men everywhere. Within the limits fixed by circumstances the commission will do an immense amount of good, but the subject is too vast to be mastered by efforts within

reach of any association whose finances are at all limited. The work undertaken is not for the benefit of any association or any State. It is for all humanity, and it is to an organization such as this that the world must look for emancipation from its greatest drawback, its chief cause of poverty, sickness and death, its most merciless foe, malaria.

Dr. C. L. G. ANDERSON has written a book, *Old Panama and Castilla del Oro*, covering the discovery, etc., of Panama and nearby territories; with maps and rare illustrations. The table of contents is quite attractive. The price is \$5.00, delivered; and the book can be obtained from Dr. Anderson at 918 18th Street, N. W., this city.

REVIEW.

SURGERY AND DISEASES OF THE MOUTH AND JAWS. By Vilray Papin Blair, A. M., M. D.; pp. 615, 384 illustrations. St. Louis, C. V. Mosby Co.; price, \$5.00.—This book has a wider scope than its mere title would indicate, comprising, for instance, such subjects as tuberculous glands of the neck and the injection and operative treatment of *tic douloureux*. It is, in fact, a fairly complete manual of the surgery of the head and neck. The subjects discussed are treated in a clear and comprehensive way and the operative measures advised are judicious.

It is much more than a mere compilation and may be recommended with confidence to anyone desiring reliable information upon the subjects of which it treats. The book is well printed and profusely illustrated.—EDWARD A. BALLOCH.

LECTURES DELIVERED at the Exhibition Building of the XV International Congress on Hygiene and Demography, September 16 to October 5, inclusive, by members of the Medical Society of the District of Columbia:

- T. A. Williams, *Nervousness in Children*, September 20.
- B. M. Randolph, *Abuse of Drugs*, September 30.
- G. L. Magruder, *Milk*, September 30.
- E. P. Magruder, *What to do While Waiting for the Doctor*, October 1.
- E. H. Egbert, *Quack Mechanotherapy*, October 1.
- W. M. Barton, *Self-medication*, October 1.
- C. I. Griffith, *Poisonings*, October 2.
- W. C. Woodward, *Mortality in the District of Columbia as Affected by Race*, October 2.
- H. C. Macatee, *How Medical School Inspection Benefits Your Child*, October 3.
- Carl Henning, *Care of the Eyes*, October 3.

- H. D. Fry, Hygiene of Motherhood, October 3.
 C. A. Simpson, The Necessity for Early Diagnosis to Lessen the Mortality from Cancer, October 3.
 Tom A. Williams, The Truth about Mental Healing, October 3.
 W. A. Wells, The Origin of Colds and the Prevention of Catarrh, October 4.
 W. P. Carr, The Use and Abuse of Suggestion in Medicine, October 4.
 Geo. H. Heitmüller, The Ideal Eye, and Deviations Therefrom, October 4.
 Arthur Murray, Flies, October 5.
 At the Symposium, Saturday, October 5, 8 P. M.:
 Jesse H. Ramsburgh, Incipient Tuberculosis.
 Louise Tayler-Jones, Infant Mortality.
 D. Percy Hickling, Insanity.
 W. C. Gwynn, The Dangerous Consumptive.
 Elenora C. Folkmar, twelve lectures on the subjects: Birth of a New Life; Hygiene of Adolescence; The Red Plagues; The Dangers to be Avoided in Teaching Sex Hygiene.

RECENT PUBLICATIONS BY PHYSICIANS OF THE DISTRICT.

- J. F. Anderson (U. S. P. H. S.); Measures adopted by the U. S. Government to prevent the introduction of cholera; *Amer. Jour. Pub. Hlth.*, July.
 F. M. Barnes; Syphilitic psychoses; *Medical Record*, N. Y., Oct. 19.
 W. M. Barton; The sociologic factor in medical progress; *Va. Med. Semi-Monthly*, August 23, page 252. Also Nasal obstruction as an early symptom of cardio-renal disease; *Medical Record*, N. Y., August 31; abstracted in *Jour. A. M. A.*, Sept. 14, page 902.
 W. C. Borden; History of surgical hemostasis; *N. Y. Med. Jour.*, August 24 and 31.
 J. W. Bovée; Statistics in radical operation for cancer of cervix uteri; *Amer. Jour. Obstet.*, September.
 W. P. Carr; Crile's researches in regard to shock; *N. Y. Med. Jour.*, Feb. 17.
 T. A. Claytor; Two cases of tumor of spinal cord; *Med. Record*, N. Y., Nov. 2.
 John Constas; Some thoughts on sanitary questions concerning the immigrant in his own country and in the United States of America; *Jour. A. M. A.*, Oct. 19, page 1481.
 C. F. Craig (U. S. A.); Relation of parasitic amebæ to disease; *Jour. A. M. A.*, October 19, page 1480.
 C. F. Craig (U. S. A.), and H. J. Nichols (U. S. A.); Complement fixation in syphilis with spirochæte culture antigens; *Jour. Exper. Med.*, September.

V. Dabney ; Fibroma of nose and naso-pharynx with sudden malignant degeneration ; *Laryngoscope*, July.

Llewellyn Eliot ; Quinine and urea hydrochloride as a local anesthetic ; *Va. Med. Semi-Monthly*, May 10, page 67.

J. A. Flynn ; Glanders ; *Va. Med. Semi-Monthly*, September, page 298.

W. H. Frost ; Active and passive immunization against plague ; reprint 92 from Public Health Reports.

H. G. Fuller ; Review of operative procedures in saphena varicosities ; *Va. Med. Semi-Monthly*, October 25, pages 353 and 358.

T. A. Groover ; The development of roentgenology ; *Hospital News*, September 15, page 5.

F. R. Hagner ; Case of extirpation of bladder for malignant disease ; *Med. Record*, N. Y., Oct. 19 ; abstracted in *Jour. A. M. A.*, November 2, page 1653. Also Regurgitation of fluid from bladder to kidney during ureteral catheterization ; *Surg. Gynec. and Obstetrics*, October. Also, case of unrelieved unexplainable vesical tenesmus ; *Amer Jour. Urology*, October ; abstracted in *Jour. A. M. A.*, Nov. 16, page 1825.

H. H. Hazen ; A comparison of pemphigus foliaceus and dermatitis exfoliatus neonatorum (Ritter). with remarks on the etiology ; *Jour. Cutan. Disease*, June ; reprint. Also, Some recent developments in the treatment of syphilis ; *Va. Med. Semi-Monthly*, August 23, page 246. Also, Oily injections of salvarsan ; *WASH. MED. ANNALS*, September ; abstracted in *Jour. A. M. A.*, September 4, page 900. Also, pellagra in the District of Columbia ; *Va. Med. Semi-Monthly*, Nov. 8, page 376.

Carl Henning ; A method of determining the muscle balance at the reading distance ; *Ophthal.*, September.

W. W. Husband ; Immigration problem of today ; *Bull. Amer. Acad. Med.*, October.

G. I. Jones ; The treatment of chronic influenza ; *Jour. A. M. A.*, Oct. 5, page 1288.

L. F. Kebler ; The quality of drugs in the market ; *Jour. A. M. A.*, November 2, page 1604.

J. T. Kelley ; Uterine prolapse ; *Va. Med. Semi-Monthly*, Oct. 25, pp. 356 and 358.

H. H. Kerr ; Pylorectomy by basting stitch method ; *Surg., Gynec. and Obst.*, October.

J. W. Kerr (P. H. S.) and A. A. Moll (P. H. S.) ; Organization, powers and duties of health authorities ; *Bull. 54, P. H. S.*, August, 1912.

L. Kolipinski ; The proper treatment of diabetes mellitus and its cure by diet ; *Mo. Cyclop. and Med. Bull.*, August, page 463, and September, page 528.

George McCoy (P. H. S.) ; Notes on the bionomics of rats and ground squirrels ; Reprint from Public Health Reports.

A. J. McLaughlin (P. H. S.) ; Modern methods of quarantine

against Asiatic cholera; *Military Surgeon*, August. Also, The relation of interstate waters to the spread of typhoid; *Jour. A. M. A.*, Oct. 19, page 1425.

E. P. Magruder; Fracture of skull; *N. Y. Med. Jour.*, Oct. 26.

W. J. Mallory; Dietetic therapy; *Va. Med. Semi-Monthly*, Sept. 13, page 270.

A. D. Melvin; Meat inspection and tuberculosis; *Southern Med. Jour.*, November, page 715.

G. A. Menge; Some new compounds of cholin type; *Jour. Biol. Chem.*, October.

J. F. Moran; Venesection in post-partial eclampsia; *Va. Med. Semi-Monthly*, September, page 297.

J. D. Morgan; Relation of the clinical professor to the hospital, the community, the medical school and the profession; *Med. Record, N. Y.*, June 8.

W. G. Morgan; Diagnosis of the gastric and duodenal ulcer; *Archives of Diagnosis*, July.

S. B. Muncaster; Thyroid with arsenic and its associated internal secretions in diseases of the eye; *Ophthalmic Record*, July.

H. J. Nichols (U. S. A.); Analysis of antityphoid vaccines with a consideration of their relative practical value; *Jour. A. M. A.*, Oct. 19, page 1482. Also, Comparative observations on biological characters of spirochæta pallidans s. pertenuis; *Southern Med. Jour.*, September, page 528.

Mary O'Malley; Carbon monoxide poisoning with acute symptoms, relapse with psychotic symptoms, and complete recovery; *Jour. A. M. A.*, Oct. 26, page 1540.

B. M. Randolph; Medicine in lay literature; *Old Dom. Jour. Med. and Surg.*, August, page 63; September, page 151; October, page 196. Also, Sarcoma of frontal lobe; abstracted in *Jour. Med. Soc. New York*, November, page 297.

L. H. Reichelderfer; Purification of water by means of the Darnall filter; *Military Surgeon*, September.

Charles Richards (U. S. A.); The relation of the civil hospital to the military establishment in time of peace; in time of war; *Jour. A. M. A.*, November 9, page 1698.

C. W. Richardson; Case of sinus thrombosis, excision of internal jugular, with recovery; *Laryngoscope*, September. Also, Correcting deflection of nasal septum; *Jour. A. M. A.*, September 21, page 1131.

W. C. Rucker; Prophylaxis of bubonic plague; *Amer. Jour. Pub. Hlth*, October. Also, Rocky Mountain spotted fever; reprint 96 from Public Health Reports.

F. F. Russell (U. S. A.); Some results and fields of usefulness of anti-typhoid vaccination; *Jour. A. M. A.*, Oct. 12, page 1362. Also, The results obtained with antityphoid vaccine in the Army to the end of 1911; *N. Y. State Jour. Med.*, Nov., page 621.

F. F. Russell (U. S. A.) and H. J. Nichols (U. S. A.) ; Experiment with A. and N. tube to determine its efficiency as a gonococcide ; *Military Surgeon*, August.

R. W. Shufeldt (U. S. A.) ; Dr. Bernard S. Talmey on neurasthenia sexualis ; *Pacific Med. Jour.*, Oct. 19, page 605.

C. A. Simpson ; Technic of x-ray treatment of skin diseases and cancer ; *Va. Med. Semi-Monthly*, Oct. 25, page 348.

D. G. Smith ; The resident physician ; *Hospital News*, Sept. 15, page 14.

C. W. Stiles ; Coldblooded zoölogic inquiry into American patriotism ; *Jour. Tenn. State Med. Assn.*, August.

E. R. Stitt (U. S. N.) ; A quick method for accurately differentiating the species of hookworm of man ; *Jour. A. M. A.*, November 9, page 1706.

C. F. Stokes (U. S. N.) ; Wounds of naval warfare ; *N. Y. State Jour. Med.*, September, page 488.

L. H. Taylor ; The value of enterostomy in ileus ; *Mo. Cyclop. and Med. Bull.*, July ; abstracted in *Jour. Surgery*, October, page 381, and *Jour. Kansas Med. Soc.*, November, page 454.

G. H. Torney (U. S. A.) ; Surgery of the battlefield ; *N. Y. State Jour. Med.*, September, page 483.

R. H. True ; Drug plant cultivation ; *Jour. A. M. A.*, Nov. 2, page 1606.

G. T. Vaughan ; Central dislocation of femur ; *Surg., Gynec. and Obstet.*, September ; abstracted in *Jour. A. M. A.*, October 5, page 1324.

C. E. Verrill ; Infant mortality and its relation to the employment of mothers at Fall River, Mass. ; *Jour. A. M. A.*, Oct. 19, page 1482.

C. S. White ; Observations upon post-operative treatment ; *Va. Med. Semi-Monthly*, Oct. 11, page 313.

W. A. White ; Rationalization of mental medicine ; *Interstate Med. Jour.*, September.

M. I. Wilbert ; Present status of the laws relating to patents and trademarks ; *Jour. A. M. A.*, Sept. 14, page 834. Also, The work of the committee on useful remedies ; *Jour. A. M. A.*, Sept. 28, page 1163.

W. H. Wilder ; Robinson Hall ; *Hospital News*, Sept. 15, page 23.

O. Wilkinson ; Early symptoms and ocular findings in cerebral tumor ; *Annals Ophthalmology*, July.

T. A. Williams ; Interpretation of professional cramp neurosis as a tic ; *Jour. Abnorm. Psychol.*, August. Also, Case of mentally disturbed not mentally insane ; *N. Y. Med. Jour.*, Sept. 28. Also, Effective and rational psychotherapy ; *Amer. Pract.*, April. Also, Criticisms of orthodox interpretations of occupational cramp neurosis ; *Med. Record, N. Y.*, Oct. 5. Also, Multiple cramps of psychogenic type in a telegrapher ; *Boston Med. and*

Surg. Jour., August 8. Also, Chronic visceral pain in relation to surgery and psychotherapy; *Pacific Med. Jour.*, October, page 603. Also, Cramps of writers and telegraphers; *Jour. Psychol. and Neurol.*, 1912, xix; abstracted in *Mo. Cyclop. Med. Bull.*, September, page 537.

PERSONAL NOTES.

Dr. H. G. Beyer, U. S. Navy, has been transferred from the Naval Medical School to the Bureau of Medicine and Surgery.

Dr. N. D. Brecht, U. S. P. H. Service, and a member of this Society, has been ordered to Angel Island Immigrant Station for duty.

Dr. C. L. Cole, U. S. A., has been ordered to duty at the Army Medical School.

Dr. A. W. Dunbar, U. S. Navy, has been transferred from the Bureau of Medicine and Surgery to the Naval School.

Dr. A. E. Findeisen, U. S. Navy, has been ordered to the Naval Medical School.

Dr. J. D. Gatewood, U. S. N., has been ordered to the command of the Naval Medical School.

Dr. H. L. Gilchrist, U. S. A., has been ordered to duty in the Division of Military Affairs, War Department.

Dr. S. L. Hannon is said to have returned to Washington.

Dr. Charles Lynch, U. S. A., at the meeting of military surgeons in Baltimore, Oct. 1 to 5, resigned the office of secretary and was presented with a silver salver suitably inscribed.

Dr. Samuel L. Owens was married, October 23d, to Miss Clara M. Weems, of Winchester, Va.

Dr. E. E. Persons, U. S. A., has been ordered to duty at the Army War College.

Dr. H. D. Thomason, U. S. A., has been relieved from duty in the office of Division of Military Affairs.

Brig. General George H. Torney, Surgeon General, U. S. A., was a naval surgeon before entering the army. He was born in Baltimore, June 1, 1850. Was educated at the University of Virginia and graduated from its Medical Department in 1871. Was elected a member of the Medical Association of the District of Columbia, May 23, 1871, and signed the register June 7. Was appointed Asst. Surg., U. S. N., November, 1871; in June, 1875, was Passed Asst. Surg. Was appointed Asst. Surg., U. S. A., in June, 1875; became Captain in June, 1880; afterwards Major; Lt. Col. in 1903; Colonel in 1908, and Surgeon General, Jan. 14, 1909.

Dr. S. J. Turnbull, U. S. A., was married, October 9, to Miss Helen C. Chandlee, of Washington.

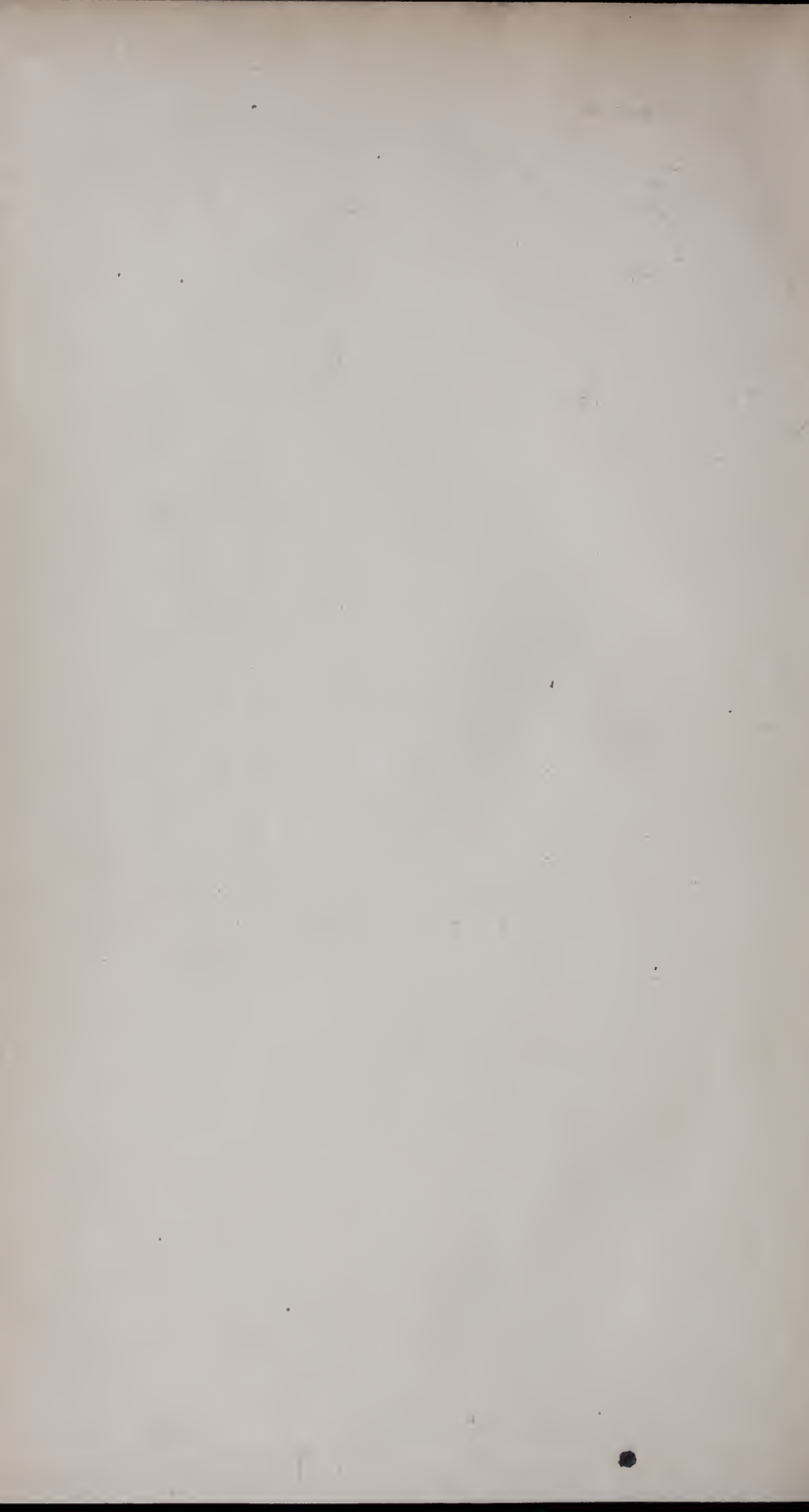
Dr. C. L. Wilbur was present, and took part in the discussions on vital statistics in the United States, at the meeting of the International Congress of Hygiene and Demography.

Dr. W. A. Wickline, U. S. A., has been ordered to duty at the Walter Reed Hospital.

Dr. C. H. Lavinder, U. S. P. H. S., was elected President, and Dr. P. E. Harrison, U. S. Navy, a Director, at the meeting of the National Association for the Study of Pellagra, at Columbia, S. C., Oct. 1 to 4.

At the meeting of the Association of Military Surgeons at Baltimore, Oct. 1 to 4, Dr. W. C. Braisted, U. S. Navy, was elected President, and Dr. J. R. Keen, U. S. A., and Surgeon General Blue, U. S. P. H. S., Vice Presidents.

At the meeting of the American Gynecological Society in Baltimore May 28 to 30, Drs. I. S. Stone, Bovée and Fry attended and took part in discussion. Dr. Bovée was elected Treasurer.



COUNTWAY LIBRARY



HC 4DB1 F

NB770

